DECEMBER 25, 1961

# PAPER TRADE JOURNAL

**Garden State Makes NEWS! — From Waste Paper. On-the-Spot Report**

**Brown's New Research Services Of Benefit to Diverse Industries**

**Glimpse at the Newsprint Demand Vs. Capacity Pictured to 1965**

**Year-End Index Lists Nearly 300 Articles of Vital Interest in '61**

Contents of the Week, pages 4-5

See page 8

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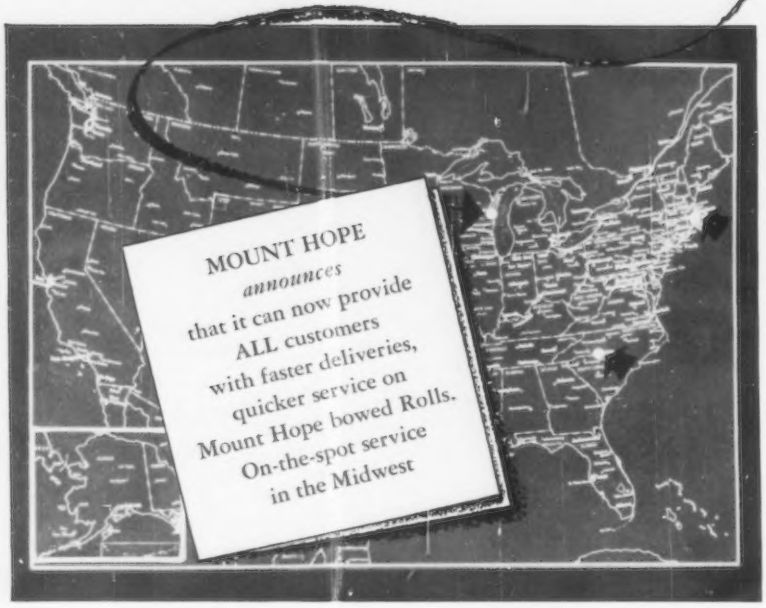
FACTS, FIGURES AND IDEAS DESIGNED TO SAVE YOU TIME AND MONEY

# web control NEWS

Volume 1 Number 5

# NOW...a new plant in Appleton, Wisconsin!




*APPLETON, Wisc., Dec. 1, 1961*— Mount Hope Machinery Company, Taunton, Mass., recently made its first shipment of Mount Hope bowed Rolls from its new plant in Appleton which began operations early this month. The new plant, under the direction of Orville J. Wilson, will offer "better and faster local delivery in the heart of one of the most important pulp and paper sections of the country," according to Mount Hope President J. Douglas Robertson. The company now has plants in Taunton, Mass. and Charlotte, N.C. as well as Appleton.

**JIM GINTER,** Mount Hope's sales engineer for Northern Illinois, Western Michigan, Wisconsin, Iowa and Minnesota, will move his office from Chicago to the Appleton plant, providing on-the-spot sales and service.

**BOB NITZA,** whose headquarters is Lakewood, Ohio, will also be able to provide faster service in his territory which includes Kentucky, Ohio, Indiana, Missouri, Illinois and Eastern Michigan.

## COMPANY ALSO ANNOUNCES DESIGN AND SIZE IMPROVEMENTS IN MOUNT HOPE BOWED ROLL

Two new sizes of fixed-bow Mount Hope bowed Rolls are being added to the company's line. The new 3″-diameter roll is a substantial improvement on an existing unit of the same size. The 5⅛″-diameter Roll was developed in response to customer demands for a unit between 4¼″ and 6¼″ Rolls. In addition, Mount Hope has announced design improvements of the 4¼″ model.

The new 3″-diameter Roll will be of Mount Hope's standard construction. This eliminates Mount Hope's only bushing-type Roll and provides appreciably better freedom in turning and substantially greater speeds. The unit is provided with either plain or sealed ends depending upon type of service. It is anticipated that the new Roll will see most of its service on paper, film and foil converting and printing machines.

This Roll uses the same bracket as the present 4¼″-diameter Roll, providing interchangeability and simplicity of mounting and adjusting. The new Roll also incorporates several new design features, including an improved seal. These improvements are also incorporated into Mount Hope's present 4¼″ unit.

The 5⅛″-diameter Mount Hope bowed Roll will fill what Mount Hope has found to be a gap between 4¼″ and 6¼″ Rolls. It will make it possible for a customer to purchase a less expensive and smaller Roll for jobs which previously would have required a 6¼″ Roll to meet tension, speed and precision requirements. The new Mount Hope bowed Roll will come with a complete line of sheaves and brackets similar to those of the 6¼″ Roll. Mount Hope bowed Rolls are manufactured in sizes ranging from ⅞″ to 10½″ outside diameter with face lengths up to 372″. When larger Rolls are needed, Mount Hope will make them.

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**The following are Registered Trade Marks: Mount Hope; Vari-Bow.**

Mount Hope Web Control Equipment MACHINERY COMPANY
15 FIFTH STREET, TAUNTON, MASSACHUSETTS

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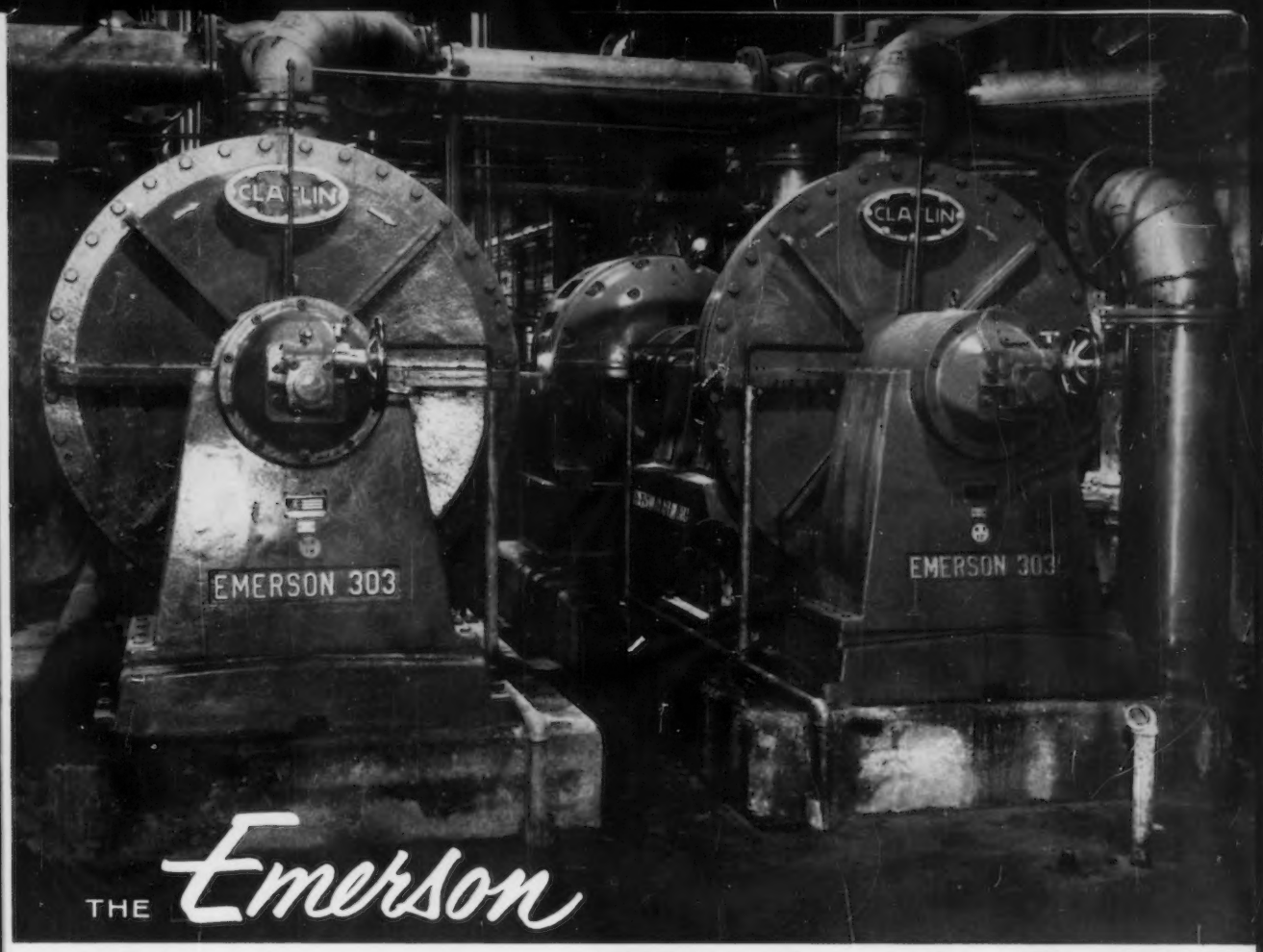
**For more information on the products mentioned above or on any felt or paper handling problem, contact Mount Hope or check the Reader Service Card. Please write in on the card the product(s) you are interested in.**

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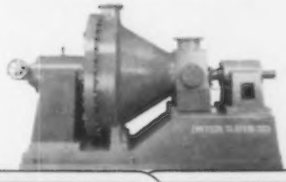
At BRUNSWICK PULP AND PAPER COMPANY *a new installation* Emerson Claflins were chosen over all other refiners to process sulphate pine and gum fibers in the South's newest bleached board mill at Brunswick, Georgia.

At GEORGE O. JENKINS COMPANY *an unusual application* Faced with the difficult assignment of refining sole leather nubs left undefibered from 6 beaters, special tackle was designed. As a result, one Emerson Claflin has solved this serious mill problem in the manufacture of leatherboard at Bridgewater, Massachusetts.

**ONLY EMERSON MAKES THE CLAFLIN**



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Associate Editor

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Associate Editor

R. E. THUEMMES
Associate Editor

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L. HAMEL
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WM. N. PERRY
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FREDERICK E. WINKLER .....Vice President
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**Week of December 25, 1961**
*Vol. 145, No. 52*


## FEATURED THIS WEEK


**Current Newsprint Overcapacity Seen to Hold Through 1965**

*Similar projection to 1965, assuming completion of a reasonable number of announced projects, indicates there will be no material change in excess of capacity over demand which exists today.* **19**

**Diverse Industries Find Use For Brown's Contract Research Service**

*To find out more about its inner workings, we recently talked with Paul M. Goodloe, director of this unique service—unique because Brown is one of the very few pulp and paper companies who regularly "rent" their research facilities to "anyone who may have a problem." He also has some further comments about the McKee hydrotropic pulping process.* **20**

**First Modern Mill Designed for News from Waste Papers**

*Garden State Paper Co. starts up new mill to make newsprint from old newspapers using process developed by the owner, R. B. Scudder of Newark Evening News—Paul D. Van Derveer* **23**

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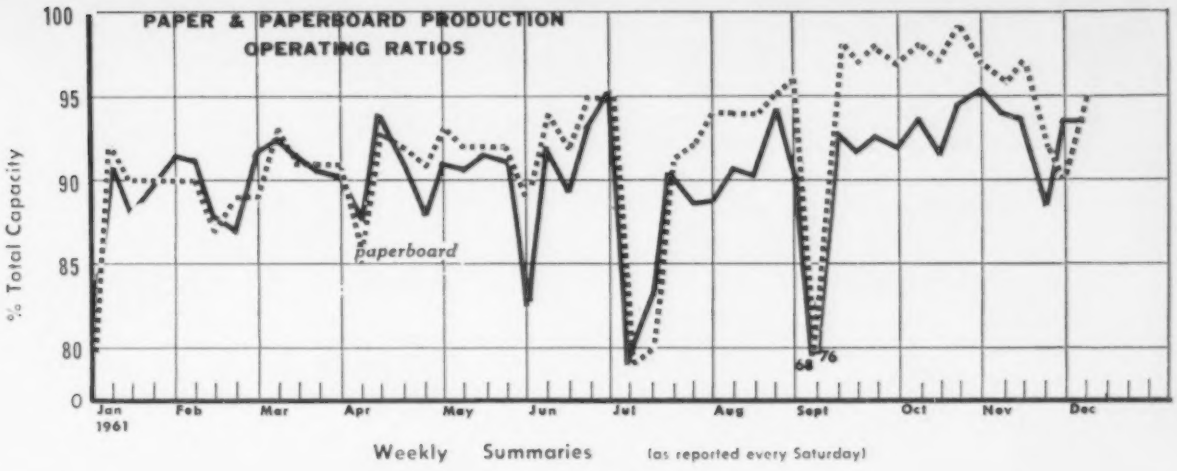


## NEWS OF THE WEEK

**Work at IPC Shows Bamboo Dissolving Pulp Potentially Commercial . . . Belgium Firm Orders American Machines . . . Expansion Scheduled at Glatfelter . . . Escher Wyss Acquires Control of Millspaugh . . . G. N. Puts Pulp Pipeline into Operation** .....

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### REMEMBER THESE DATES

**CPPA Technical Section, Annual Meeting, Queen Elizabeth Hotel, Montreal, Canada** — **JANUARY 22-26**

**Paper Week, New York City** — **FEBRUARY 19-22**

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# New digital draw-speed indicator slashes machine set-up time

## speeds correction of in-process variations

**Greatly reduces machine set-up time.** The new digital draw-speed indicator provides accurate indication of machine speeds and draw for each paper grade. When changing grades, draws are pre-set to those used when the grade was last run. The sheet can be established across the machine by instrumentation without further draw adjustment, completely eliminating trial and error methods. Based on mill operational data, this draw-speed equipment permits a 25% decrease in downtime on grade changes.

**Pinpoints location and cause of machine variations.** The new digital draw-speed indicator continually monitors speeds and draws—allows you to swiftly locate and trouble shoot the cause of section swinging. In addition, it isolates the source of trouble to either regulator or mechanical problems. Result: a substantial reduction in broke and off-grade sheet is realized.

Photo shows draw-speed indicator installed at the Pensacola, Florida plant of the St. Regis Paper Company.

**Unexcelled accuracy and versatility.** The completely transistorized Westinghouse digital draw-speed indicator system is free of drift errors. It allows readings on up to 30 different machine sections with a simple selector switch. It is available with a print-out data logging system to record machine operation. Modular construction is used to facilitate inspection or part replacement if necessary. A simple screw adjustment within the instrument swing-out panel will recalibrate the unit for up to 30% roll diameter changes.

For more information, contact your Westinghouse representative or write Westinghouse Electric Corporation, P.O. Box 868, Pittsburgh 30, Pa.

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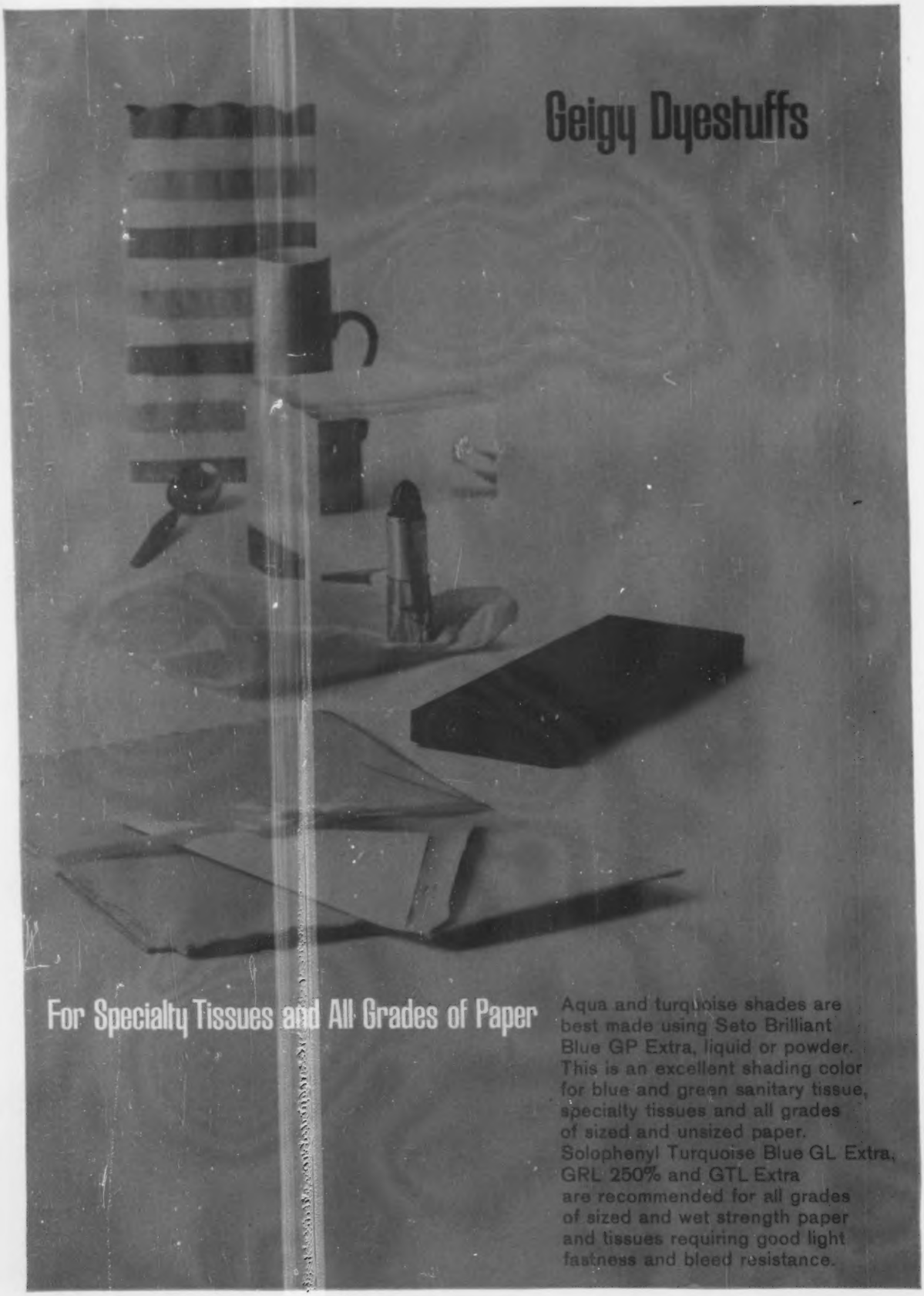
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PAPER TRADE JOURNAL
WEEK OF DECEMBER 25, 1961

## Work at IPC Shows Bamboo Dissolving Pulp Potentially Commercial

Experimental work by a visiting scientist from India at The Institute of Paper Chemistry in Appleton, Wis., has resulted in the preparation of a bamboo dissolving pulp for conversion into viscose rayon. An evaluation of the pulp termed it as having commercial potential. M. G. Karnik, a research officer at the Forest Research Institute in Dehra Dun, India, developed the pulp while working at The Institute of Paper Chemistry on a visiting scientist program with Dr. Kyle Ward, Jr., cellulose chemistry group head. Also involved was Alfred J. Morak, Institute research aide.

Mr. Karnik prepared the dissolving pulp from bamboo which he brought from India. In the pulp, the silica, while still high, was reduced to proportions which allow the pulp to be processed industrially. The pulp was converted into viscose rayon by the American Viscose Co. whose report stated that though the conversion process represented some difficulties, it exhibited commercial potential. The pulp's economic picture could be favorable in India under special conditions.

## Belgium Firm Orders American Machine

Papeteries de Belgique, S. A., has awarded a contract to The Black-Clawson Co. for a 100-inch, 8-vat board machine for its mill at Duffel, Belgium. The machine will be designed to produce high grade folding boxboard at speeds ranging from 90 to 300 feet per minute for an output of approximately 65 metric tons daily.

Scheduled for shipment in August 1962, the machine will be built by Black-Clawson's Paper Machine Division at its Watertown, N. Y., plant. The Shartle Division of Black-Clawson, Middletown, Ohio, will supply the necessary stock pumps and 12-P Selectifier screens for the new machine.

Other components of the new machine will include eight 42-inch cylinder vats, a suction return drum press, three primary presses, three main presses, a dryer section utilizing forty-eight 48-inch existing dryers, one 7-roll wet stack, one 9-roll dry stack, an "Autoflyte 36-inch" reel, and a Duplex cutter.

The machine will be driven by a Black-Clawson mechanical drive in conjunction with an electric helper unit for the wet end.

## Expansion Scheduled at Glatfelter

P. H. Glatfelter Co. has announced a further expansion of facilities to meet the production requirements of its pulp mill for coming years. Cost will exceed five and a half million dollars.

An additional black liquor recovery boiler is scheduled for operation in early 1963. The boiler will be a Combustion Engineering Co. unit, designed to operate at 900 p.s.i. steam pressure and 825°F. steam temperature. This new recovery boiler will provide the latest design features to minimize the entry of odorous compounds into the atmosphere.

To secure the necessary water purity for operating its steam boilers, the company will install an enlarged zeolite water treatment plant which will also provide water for the existing power boilers in the main boiler house.

The program also includes a third Westinghouse turbo generator rated at 7500 kilowatts. It will take steam from the recovery boiler, and will extract or induct 600 p.s.i. steam automatically from the present steam system. The new generator will produce power at 13,800 volts.

All of these additions to the Glatfelter plant should be completed and in operation by early 1963.

A fourth bleaching stage is being added in the pulp mill to further improve the quality of Glatfelter pulp. This stage will permit the use of several different types of bleaching depending on the type of pulp required.

### Escher Wyss Acquires Control of Millspaugh

The Swiss paper machinery producer, Escher-Wyss, has acquired a 60 per cent interest in Millspaugh, well-known British manufacturer of paper mill equipment.

### Paper and Paperboard Production

The American Paper and Pulp Association reported the ratio of the United States paper production to mill capacity for the week ending December 9, 1961, at 93.5 per cent, compared with 94.9 per cent, revised, for the preceding week. The ratio was 93.5 per cent for the corresponding week a year ago.

The National Paperboard Association reported the paperboard production ratio for the week ending December 9, 1961, at 95 per cent, compared with 90 per cent for the preceding week and 91 per cent for the corresponding week a year ago.

*(Detailed Statistics on page 37)*

SUSPENSION BRIDGE FOR A PULP PIPELINE—View of the bridge at Rice Farm, which carries the new Great Northern pulp pipeline across the west branch of the Penobscot river at that point.

# G. N. Puts Pulp Pipeline Into Operation

Great Northern Paper Co. has commenced regular operation of its new $2,500,000 sulphite pulp pipeline between its Millinocket and East Millinocket mills. Installation of the pipeline, seven miles in length, was begun last spring. The new pipeline is one of the most unusual constructions of its kind in the country. It is designed to transfer sulphite pulp from the producing plant at Millinocket to the paper mill at East Millinocket.

To permit the pulp to move through the pipe quickly and with least possible impedence, the inside of the tube from one end to the other needed to be glassy-smooth, corrosion-resistant, and able to withstand wear and use under high pressure for an indefinite time without roughening or deterioration. The pipe itself is buried in the ground for most of its length, and therefore must be able to withstand extremes of temperature, soil chemicals, high pressure and corrosion. And in the course of its seven-mile route the line must cross Millinocket Stream once, and the west branch of the Penobscot River twice.

To meet these various problems, and requirements, the pipeline as constructed is 18 inches in inside diameter from one end to the other. The underground portions, buried in a trench varying from six to ten feet deep, are constructed of Transite. It is lined with epoxy resin.

The sections of the line which cross streams are made of stainless steel. The crossing of Millinocket Stream is through an underwater channel. The crossing of the West Branch at East Millinocket mill occurs at the toe of the dam at the mill site. The most difficult of the stream crossings is at the Rice Farm, where a special suspension bridge was constructed to carry the pipeline over the West Branch.

Before the line was put formally into operation, the entire length was cleaned and checked out for diameter, absence of obstructions and ability to withstand high pumping pressures. This was accomplished by forcing through it a rubber ball 18½ inches in diameter, half an inch greater in diameter than the bore of the pipeline.

As a means of checking the progress of the ball through the pipe, it carried at its core a small container of radioactive material. Moving through the pipe, its speed and location were clocked by Gieger counters inserted in small tubes installed through the soil cover over the pipeline along the route. The ball made the seven-mile trip in four hours, and emerged unscathed at the East Millinocket end, proving that the line was clear, clean and ready to operate.

## Sonoco Opens General Line Sales Office in New Jersey

Sonoco Products Co. recently announced the opening of a new General Line sales office in Montclair, N. J., according to C. W. White, director of sales. This office will serve Sonoco customers in New York City, eastern Pennsylvania, New Jersey, Maryland and Delaware.

In addition to the handling of general Line sales, the Montclair office will continue to be responsible for sales from the Construction Products Division.

J. A. Durkin was named sales manager, mid-Atlantic area. He joined Sonoco in 1929 as a sales representative and was named eastern sales manager of the Construction Products Division in 1957.

Sonoco manufactures paper tubes, folding boxes, cones, specialty boards and fibre products for the construction industry. The company operates 13 plants in the United States, four in Canada and one in Mexico, as well as affiliate companies in England and Australia.

## Letter to the Editor

EDITOR, PAPER TRADE JOURNAL:

As some words that I used in a letter to the Zoning Ordinance Committee of the City of Old Town, Me., have been lifted out of context for quotation in newspapers and trade journals, I thought it would be well to ask you to clarify this situation.

My original words were, "In addition, it is our considered feeling that a paper mill, as an adjunct to the Penobscot Chemical Fibre Co., is the only answer to our long-range company problems." This statement was in objection to having land zoned so it could not later be used for our industrial long-range plan.

Our customers have been disturbed by the rumors that we were to immediately erect a paper plant at Great Works. This is not true. It is a long-range objective of P.C.F. Co. but there is nothing on our drawing boards or in our plans for the next five years at a minimum. Circumstances may change in the meantime, or we could be approached on an interesting proposal by an outside concern for the erection of a paper machine adjacent to our property, but present near-term company plans are not concerned with this situation.

In fact, we expect to continue to be a market pulp mill into the indefinite future regardless of whether a paper machine is installed at Great Works or not.

Eugene H. Clapp
President
Penobscot Chemical Fibre Co.

# PAPER PEOPLE

H. W. Parnass

G. A. Graham

## Hammermill Names Asst. Division Manager

Henry W. Parnass has been appointed assistant division manager of the Watervliet, Mich., division of the Hammermill Paper Co.

Mr. Parnass, who has been sales manager at Watervliet since April 1957 will also continue in that capacity, as well as carry administrative responsibilities for overall Watervliet operations.

A graduate of Amherst College and the Harvard Business School, Mr. Parnass joined the Hammermill organization at its Erie, Pa., headquarters in 1956, where he conducted special marketing studies for the company. Prior to that, he held sales assignments with the Lily Tulip Cup Corp. and two textile firms.

## Fibreboard Appoints Research Director

Appointment of Arthur C. Dreshfield to the position of director, research, Fibreboard Paper Products Corp., has been announced.

Dr. Dreshfield, a graduate in chemical engineering from the University of Illinois, received his doctorate from the Institute of Paper Chemistry.

Following several years work with the paper industry, Dr. Dreshfield joined Fibreboard as group manager, paperboard research and development. He replaces Dr. Howard S. Gardner, who has resigned to join the staff of the Institute of paper Chemistry at Appleton, Wis.

## W.P.U.C. Appoints Secretary-Manager

At its December 13, 1961, annual meeting at The Waldorf-Astoria in New York City, the directors of the Waste Paper Utilization Council announced the appointment of George A. Graham as secretary-manager.

Mr. Graham, who has been assistant secretary-manager since joining the council in October 1959 will succeed Ralph W. Kumler who is retiring on December 31.

Mr. Graham is a native Iowan who attended the U. S. Military Academy and Coe College. Mr. Graham became associated with the paper industry as a member of the administrative staff of The Institute of Paper Chemistry in 1948, where he remained until his appointment as assistant secretary-manager of the Waste Paper Utilization Council in 1959.

Ralph Kumler, who has been secretary-manager of the Waste Paper Utilization Council for the past six years, had previously retired as technical director of the Paper Chemicals department of American Cyanamid.

## Poulin Promoted At Scott Paper

Promotion of Wilfred E. Poulin to the position of paper mill shift supervisor at Scott Paper Co.'s Winslow plant has been announced.

Mr. Poulin was first employed by the Hollingsworth and Whitney Co. in 1943. After Naval service he returned to the plant in the paper mill. He progressed to machine tender on number one paper machine in 1957. He then became swing machine tender and back tender on number six paper machine.

## Lichty and Melsen Advance At Nekoosa-Edwards

Donald Lichty has been appointed treasurer and John P. Melsen controller for Nekoosa-Edwards Paper Co.

Mr. Lichty will be responsible for administration of funds and securities as requested in all matters pertaining to statistics, accounting, customer credits, insurance and the employee retirement plan. He will discharge the duties of the corporate office of treasurer as provided in the bylaws of the company and will continue to report to S. A. Casey, executive vice-president of Nekoosa-Edwards.

Mr. Melsen as controller for Nekoosa-Edwards will be responsible for establishing, co-ordinating and maintaining through authorized management, an integrated plan for control of operations. He will report to Mr. Lichty and discharge the duties of the corporate office of controller as provided in the bylaws of the company.

**Donald Lichty,** right, is the new treasurer and **John P. Melsen,** the new controller at Nekoosa-Edwards.

A graduate of the University of Iowa with a B.S. degree in commerce, Mr. Lichty came to Nekoosa-Edwards in 1933, entered the accounting department in 1937 and has been the controller since November 1953.

Mr. Melsen is a certified public accountant with a B.B.A. degree in accounting from the University of Wisconsin. He joined Nekoosa-Edwards in 1953 as a tax accountant after several years service with the Wisconsin Department of Taxation and the United States Department of Internal Revenue and has been Mr. Lichty's assistant controller since February 1958.

H. A. Smith

S. C. Fairbanks

Stanley Stafford

Burder Teague

# Hamersley Announces Personnel Changes

A series of personnel changes have been announced by The Hamersley Manufacturing Co., papermakers, Garfield, N. J.

H. A. Smith, vice president of manufacturing since 1950, is retiring and will be succeeded by S. C. Fairbanks, former vice president of research and technical director. Mr. Fairbanks, with Hamersley since 1927, will officially begin his new duties on January 1.

Also announced is the retirement of Stanley Stafford a 43 year veteran of the firm and paper mill superintendent since 1954. Mr. Stafford is succeeded by Burder Teague who has had extensive papermaking experience with southern and mid-western papermaking companies. Mr. Teague joined the firm in April of this year.

The firm which celebrates its 85th anniversary in 1962 is contemplating other changes involving both personnel and manufacturing methods that are designed to further strengthen its position in the glassine and greaseproof and packaging industry.

## National Gypsum Picks Market Research Director

President Fred A. Manske of the National Gypsum Co. has announced the promotion of Philip C. Wilson, as director of marketing research.

Mr. Wilson has been in marketing research for several years.

## Alaska L&P Appoints V-P, Pulp Mill Operations

Alaska Lumber & Pulp Co., Inc., announces that Thomas R. Stein, formerly mill manager of the Sitka operation, has been appointed vice president pulp mill operations.

## Sonoco Products Fills Newly Created Post

A. H. Gildersleeve has been named to the newly created position of director of customer relations for Sonoco Products Co.

Mr. Gildersleeve joined the company in 1925. He was named general sales manager, northern division in 1935. He will maintain his headquarters in Sonoco's Mystic, Conn., offices.

R. E. Francis has been appointed sales manager, New England. His headquarters will continue at Mystic and he will be in charge of general line sales in that area.

He joined the company in 1928 and was manager of Sonoco's Garwood, N. J., plant in 1936. He was named assistant sales manager, northern division, in 1943.

## Hudson Promotes Three At Palatka Mill

Hudson Pulp and Paper Corp., New York, has promoted Lester F. Perryman, Paul J. Griffin, Holland W. Holle to shift supervisors at its Palatka (Fla.) mill.

Mr. Perryman, a native of Trenton, Fla., joined Hudson in 1958 as an expeditor in the scheduling department. Most recently, he was a scaleman in the paper machine department.

Mr. Griffin joined Hudson in the grocery bag department in 1948. He is a native of Palatka.

Mr. Holle joined Hudson in 1954 in the multiwall bag plant and subsequently became a checker-loader in the tissue shipping department.

Prior to joining St. Regis as a research engineer in 1960, he was on the teaching staff of Massachusetts Institute of Technology.

Joseph Busch

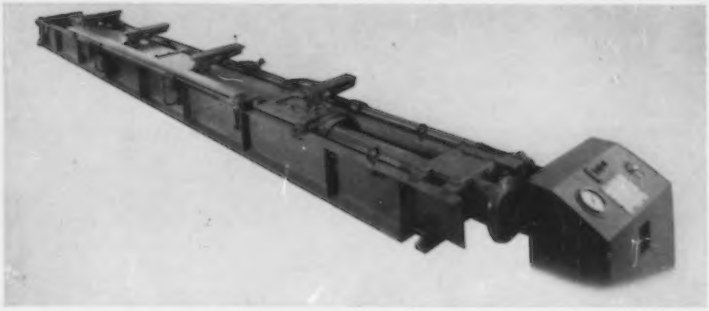
## Dixie Cup Names Purchasing Director

Joseph Busch has been named director of purchasing for the Dixie Cup Division of American Can Co., effective January 1.

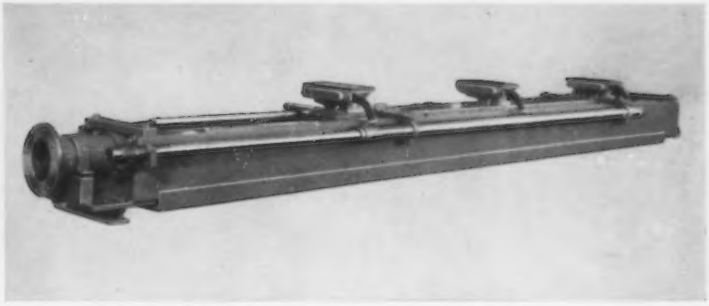
Mr. Busch who has been assistant director, joined Dixie Cup in 1933. With Dixie Cup, he has worked in the manufacturing, planning, sales and purchasing departments. He was made assistant purchasing director in 1950.

Mr. Busch succeeds Edgar Winne as purchasing director. Mr. Winne, however, will continue as vice president of the purchasing department until his retirement in mid-1962.

# Put VICKERY CONDITIONERS To Work



## *On Your* PRESS FELTS



## *On Your* WET FELTS

***and you:***

- **avoid midweek shutdowns**
- **maintain machine speed throughout the run**
- **increase quality and uniformity**
- **almost always increase felt life**

***what's more,*** conditioned *press felts* mean maximum moisture removal at the presses where it costs a fraction of what it does at the dryers

conditioned *wet felts* eliminate crushing and reduce shower volume

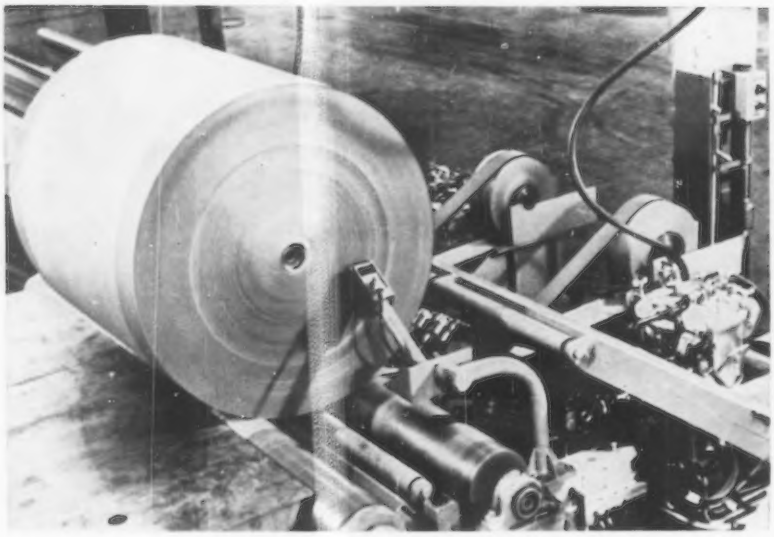
There is a modern, hydraulically driven, traveling header Vickery Felt Conditioner to meet every paper machine and felt operating need. Ask us for recommendations and estimates.

**BIRD MACHINE COMPANY**

**SOUTH WALPOLE, MASS.**

REGIONAL OFFICES: EVANSTON, ILLINOIS
PORTLAND 4, OREGON • ATLANTA 9, GEORGIA
Canadian Manufacturers of Bird Machinery
CANADIAN INGERSOLL-RAND COMPANY, Limited, Montreal

# PJT NEW EQUIPMENT & SUPPLIES



## End Bander Automatically Adjusts to Roll Width

A roll end bander manufactured by Lamb-Grays Harbor Co. automatically applies any desired number of turns of end bands to both ends of paper rolls in minimum time. The unit will automatically accommodate a wide range of roll sizes in random order.

In a systems application, the conveyor is momentarily stopped while the roll is discharged onto the banding unit. The entire banding cycle is energized as the roll comes to rest against a cushioned backstop. As the roll is revolved, the band is dispensed from a roll in a backstand and glue is applied. The band is fed under and around the roll and automatically cut off after the pre-set number of turns are applied. The banded roll is then ejected into the next vacant space on the roll conveyor.

Full information can be obtained from the manufacturer: Lamb-Grays Harbor Co., Inc., Box 359, Hoquiam, Wash.

## Develops Universal Doctor and Water Filled Support

One type of doctor now provides correct doctoring for all rolls of all lengths, diameters and compositions. This, in a nutshell, describes the Vickery "U" doctor, says Bird Machine Co., its developer.

The "U" doctor consists of a precision-machined holder in which is inserted one-piece units — "keep," spring plate, and blade. The holder comes in two weights of steel for dry end application, and one weight of bronze for wet end applications. These, plus various combinations of keeps, spring plates and doctor blades, provide a range of flexibility to meet any and every doctoring need, says a Bird spokesman. Thus, as conditions vary from one roll on down the line, the "U" Doctor meets and matches the varying doctoring requirements without any change in its basic design.

The "U" doctor is built in sections with no section more than three feet long. What this means is that any doctor for any width of role can be installed by a single individual. It also means that doctoring will be uniform in pressure, blade contact and blade flexibility. This uniform performance will be permanently maintained, says Bird.

In addition the "U" doctor permits minimum blade pressure on the roll. Another advantage is that, regardless of over-all length, the doctor becomes almost impossible to damage or get out of alignment during installation or maintenance. The doctor sections are said to withstand rough handling or even repeated dropping. Moreover, the doctor's can be removed from either end or transversely from the front, whichever is most convenient for a given installation.

In a concurrent development, Bird says that the problem of temperature variation and its distorting effect on doctor supports, with consequent uneven doctoring can be alleviated with its Aquastatic support.

This Aquastatic support is completely filled with liquid—water when temperatures in the dryer remain below 200 degrees; a special heat transfer liquid when temperatures exceed 200 degrees.

The fluid remains static inside the doctor support. This means that the heat from the roll is transferred by convection to the support with uniformity throughout. Temperature variation is eliminated and, with it, distortion and uneven results. Whatever expansion there is, limits itself to even, lateral expansion across the entire width of the machine. Thus, there is effected a savings in heat and reduced roll maintenance, says Bird. Further information on the doctor and supports is available from Bird Machine Co., South Walpole, Mass.

## Roll-Handling Truck For Short Hauls

A hydraulic roll-handling truck has been introduced by the Stokvis Multiton Corp. for the "short haul" movement and precise positioning of virtually and rolled material, including paper.

The forks of the truck are fitted

with special, easily replaceable hardwood inner liners. These prevent damage to the roll, supporting the load evenly, without clamping or pinching action.

The truck is available in capacities of 2200, 3500 or 4400 pounds and in fork lengths of 36, 42 or 48 inches. Two widths are offered: for rolls from 26 to 39 inch diameters or for rolls from 40 to 62 inch diameters. For further information, contact: Stokvis Multiton Corp., 18 Secatoag Avenue, Port Washington, N. Y.

### Coupling Design Cuts Field Assembly Time and Costs

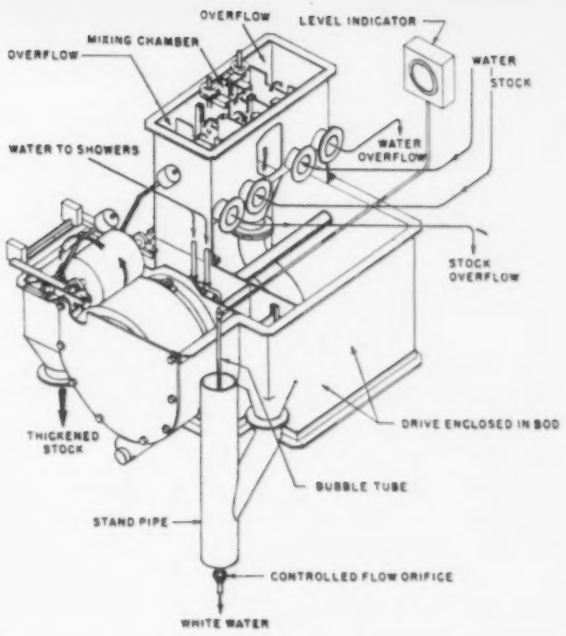
A line of regular and insulating pipe couplings, providing the time and labor-saving advantages of factory pre-assembly and easy installation have just been made available by Dresser Manufacturing Division, Dresser Industries, Inc., Bradford, Pa.

Designated as the "Stab-38" and "Stab-39" Couplings, these devices are being offered in steel pipe sizes from 2 to 12 inches i.d.

The couplings require only slipping onto the pipe and tightening of the bolts. The time for making, for example, an 8-inch diameter joint is less than 10-minutes, and even less

time for smaller diameter pipes. No threading, bevelling, calking, brazing or shimming is required—exact pipe fitting is unnecessary, since the couplings absorb minor misalignments of pipe ends, says company spokesman.

The couplings will be shipped with a protective, thermosetting phenolic-resin base shopcoat, which is itself corrosion-resistant, as well as being entirely compatible with all field-applied coatings and most commonly used paints. It is said to maintain a strong bond to the steel parts, resisting checking, chalking, peeling or bleeding, and is not affected by oils or solvents.




## Automatically Adjusts Refiners to Control Freeness

A freeness controller which automatically adjusts refiners to hold stock freeness within pre-set limits has been developed by Mead Corp. and is now being manufactured through licensing agreements by Black-Clawson Co. Instruments now in operation are controlling to less than ±10 ml. C.s.f., even ±5 ml. in some cases; said a B-C spokesman.

Freecon's operation is based on a small cylinder machine which continuously forms a sheet of pulp and provides a means of measuring changes in drainage rate. In operation, stock enters a headbox and is diluted to a uniform consistency of 1-2 per cent, the mixture being delivered to the cylinder vat. A sheet is formed on the cylinder, couched off, and is returned to the system. Showers inside the cylinder keep the face clean and drainage uniform. A couch roll is used on the face to improve sheet removal and aid in maintaining a clean surface. The drive consists of a one h.p. motor driving through a gear and chain to give a constant 13.5 cylinder r.p.m.

The filtrate passing through the cylinder face passes over a weir, then enters a standpipe equipped with an orifice plate. Changes in the filtrate level, caused by changes in the drainage rate, are signalled to a pneumatic level recorder/controller. Here, changes in its air pressure actuate two primary timers which signal the refiner plug or disk controls for a pre-determined period of time. One of these timers is for minor adjustments and the other calls for major adjustments in settings.

After either primary timer has gone into operation, a secondary timer automatically shuts off the control system for a period of time sufficiently long to insure that a new sample has reached the vat before another adjustment is made. This prevents hunting of the control system. Of course, the closer the instrument is located to the refiners, the more frequently can adjustments be made.

Furnished with the instrument is a set of ten orifice plates of different sizes. By adjusting the set points of the instrument, a variation of approximately 100 ml in freeness level is possible. A change in orifice plates can be made in less than a minute, it was said.

The possible application of this instrument is limited only by those installations where the nature of the pulp is such that a sheet cannot be formed on the cylinder, said Black-Clawson.

The Freecon can be used to control any refining equipment regardless of design if it can be adjusted by mechanical electrical and hydraulic means. Additional installation which are being made will establish the effect, if any, of fillers and other additives in the pulp on the reliability of the system. For complete details, contact: The Black-Clawson Co., Shartle Division, Middletown, Ohio.

Fox River Paper Corporation — Fine Papers

Appleton, Wisconsin — April 4, 1961

Mr. Huber Newcomb
The Manchester Machine Co.
Middletown, Ohio

Dear Mr. Newcomb:

Your request for information regarding the operation of our No. 5 Machine press section has been taken from our records and represents a comparison of 9 months operation of the old press section with 9 months operation of the new press.

1. Steam cost savings per ton of paper - Decrease of 9.16%.

2. Felt cost per ton of paper:
   a) First Press - Decrease of 35.0%
   b) Second Press - Decrease of 21.0%.

3. Production (based on pounds) - Increase of 5.6%.

4. Downtime (based on cost) - Decrease of 19.6%.

The start-up of the new press section presented no problem, and, outside of a few minor changes, is operating exceptionally well. The quality of the paper has improved and is more uniform. The control that we have on the operating pressures of the presses has been a great help in the grades that we manufacture.

We have been able to increase the speed on certain grades, but for most of our grades we have maintained the same speeds due to other machine operating conditions. Therefore, the improvement of the machine operation, steam costs, felt costs and production are due entirely to the press section.

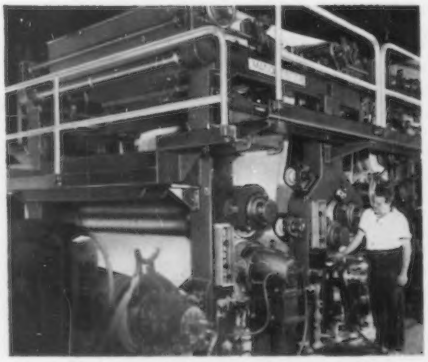
If you should need additional information, please contact us.

Very truly yours,
Arnold G. Beaman
A. G. Beaman
Superintendent

ACB:jn


# MANCHESTER PRESS SECTION CUTS COSTS FOR FOX RIVER

You get more water removal, improved quality and lower operating costs with a Manchester press section. In his letter, above, Superintendent A. G. Beaman reports on the results of a Manchester installation at the Appleton, Wisconsin mill of The Fox River Paper Corporation. Manchester's successful experience with presses and press sections assures similar savings and production advantages for you. Do as other industry leaders are doing — when you plan your next press section, call in the man from Manchester. Write: *The Manchester Machine Company, Middletown, Ohio.*



*Manchester suction press section installed on No. 5 machine at Appleton, Wisconsin mill of Fox River Paper Corporation.*

*Manchester... profit builders for papermakers*

MMC

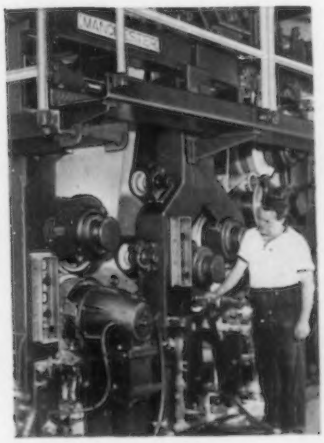
## THE MANCHESTER MACHINE COMPANY

**See you at the 47th Annual TAPPI Convention**
**Booth 25, Commodore Hotel, New York City, Feb. 19-21**

MANCHESTER
PRESS SECTIONS
SAVE MONEY
FOR THESE
AND OTHER
FIRMS, TOO

- ARMSTRONG CORK COMPANY
- BESTWALL GYPSUM COMPANY
- THE BEVERIDGE PAPER COMPANY
- CROCKER, BURBANK & CO. ASS'CN
- HAMILTON PAPER COMPANY
- NICOLET INDUSTRIES, INC.
- THE SORG PAPER COMPANY
- THE STEVENS PAPER MILLS, INC.
- WEST VIRGINIA PULP AND PAPER
- WISCONSIN TISSUE MILLS
- FIBREBOARD PAPER PRODUCTS CORPORATION

THE MANCHESTER MACHINE COMPANY



# Prices of Fibers

## MARKET WOOD PULP

FOURTH QUARTER CONTRACT PRICES PER SHORT AIR-DRY TON

Delivered Basis

| | U.S. | Canadian | Swedish | Finnish | Norwegian |
|---|---|---|---|---|---|
| Groundwood | $82.50/ 90.00 | $82.50/ 90.00 | $90.00/ — | $90.00/ — | $90.00/ — |
| Bleached Gw'd. | 97.50/100.00 | 97.50/100.00 | | | |
| Kraft, Blchd. | ‡140.00/150.00 | ‡140.00/150.00 | 150.00/ — | 150.00/ — | 150.00/ — |
| Kraft, Blchd. Hdwd. | 135.00/140.00 | | 140.00/ — | | |
| Kraft, Semi-bleached. | 130.00/140.00 | | | | |
| Kraft, Unbl. | 117.50/125.00 | 125.00/ — | 125.00/130.00 | 125.00/ — | |
| Sulphite, Blchd. | ‡135.00/140.00 | ‡135.00/140.00 | 140.00/ — | 140.00/ — | 140.00/ — |
| Sulphite, Bl. Hdwd. | 135.00/ — | | | | |
| Sulphite, Unblchd. | 125.00/ — | 125.00/ — | 125.00/ — | 125.00/ — | 125.00/ — |
| Sulphite, Unb'l. Gl'sn. | | 140.00/ — | 134.00/ — | | |
| Soda, Blchd. | 130.00/135.00 | 130.00/135.00 | | | |

‡ Depending on Brightness.

## COTTON LINTERS

F.O.B. OIL MILLS PER CWT
WEEK ENDED DECEMBER 12

| | Atlanta | Memphis | Dallas | Los Angeles |
|---|---|---|---|---|
| Grade 1 | n.a. | n.a. | n.a. | n.a. |
| 2 | n.a. | n.a. | $9.00/8.50 | $8.25/8.00 |
| 3 | $8.00/7.75 | $8.25/7.50 | 8.00/7.25 | 7.50/7.25 |
| 4 | 7.75/7.25 | 7.25/7.00 | 7.00/6.75 | 7.00/6.50 |
| 5 | 7.25/6.75 | 6.75/6.50 | 6.75/6.50 | 6.00/5.75 |
| 6 | 6.75/6.25 | 6.00/ — | 6.25/6.00 | 5.50/ — |
| 7 | 6.25/5.75 | 6.00/ — | 6.00/5.75 | n.a. |

## WASTE PAPER MARKET

Mill Prices, f.o.b. Trucks Shipping Point — Includes Brokerage

These quotations are a partial indication of the price range on volume tonnage in each market on the date specified, as gathered from major dealers and brokers. SPECIAL PACKINGS AND SPOT TONNAGE NOT INCLUDED. Prices nominal.

| | New York | Boston | Chicago | Los Angeles |
|---|---|---|---|---|
| | December 18 | December 18 | December | December |
| No. 1 Mixed Paper | $ 12.00/ 13.00 | 7.00/ 10.00 | 6.00/ — | 12.00/ — |
| No. 1 News | 16.00/ 18.00 | — / 14.00 | 16.00/ — | 15.00/ — |
| Overissue News (Lg. size) | 21.00/ 24.00 | 12.00/ 14.00 | 21.00/ — | 18.00/ — |
| Mill Wrappers | 19.00/ 22.00 | 10.00/ 12.00 | 11.00/ — | 13.00/ — |
| Old Corrugated Containers | 22.00/ 25.00 | 18.50/ 19.00 | 20.00/ — | 16.00/ — |
| Super Resorted Kraft Paper | 35.00/ 40.00 | — / — | 30.00/ — | 50.00/ — |
| New Double Kr. Ld. Corr. Cuts | 27.50/ 30.00 | 30.00/ 32.50 | 27.50/ — | 27.50/ — |
| (Semi-chem. medium) | 45.00/ — | 40.00/ 45.00 | 42.50/ — | — / — |
| New 100% Kraft Corr. Cuts | 42.50/ 47.50 | — / — | 50.00/ — | — / — |
| New Br. Kraft, Env. Cuts | 65.00/ 70.00 | 65.00/ 75.00 | 45.00/ — | 37.50/ 40.00 |
| New Br. Kr. Bag Waste Prntd. | 50.00/ 55.00 | 50.00/ 60.00 | 45.00/ — | 35.00/ — |
| New Br. Kr. Bag Waste Unprintd. | 55.00/ 60.00 | 60.00/ 65.00 | 55.00/ — | 45.00/ 47.50 |
| No. 1 Groundwood Shvs. | 20.00/ 25.00 | 20.00/ 25.00 | 15.00/ — | 25.00/ — |
| White Newsblanks | 50.00/ 55.00 | 40.00/ 45.00 | 30.00/ — | 55.00/ — |
| No. 1 Soft White Shvs. | 60.00/ 65.00 | 55.00/ 65.00 | 50.00/ — | 75.00/ — |
| Super Soft White Shvs. | 68.00/ 75.00 | 70.00/ 80.00 | 60.00/ — | — / — |
| Hd. White Shvs. | 85.00/ 90.00 | 80.00/ 90.00 | 75.00/ — | 80.00/ — |
| Hd. White Env. Cuts | 95.00/100.00 | 100.00/105.00 | 80.00/ — | 103.00/ — |
| Col. Tab. Cards | 42.50/ 45.00 | 42.50/ 45.00 | 47.50/ — | 35.00/ — |
| Manila Tab. Cards | 62.50/ 65.00 | 62.50/ 65.00 | 70.00/ — | 75.00/ — |
| No. 1 Col. Ledger | 35.00/ 40.00 | 32.50/ 37.50 | 40.00/ — | 23.00/ — |
| White Ledger | 55.00/ 57.50 | 50.00/ 55.00 | 50.00/ — | 40.00/ 45.00 |
| Mixed Book & Mag.† | 14.00/ 15.00 | — / — | 8.00/ — | / — |
| No. 1 Books‡ | 15.00/ 20.00 | 13.00/ 22.00 | 22.50/ — | 8.00/ 13.00 |

† Includes Time & Life; no coarse groundwood. ‡ Not to exceed 10% of groundwood.

# NEWS OF CONVERTERS

## Maryland Cup Divisions Move Offices

Sweetheart Cup, Maryland Paper Products Co., Maryland Match Co., and the Maryland Baking Co., divisions of Maryland Cup Corp. have moved their offices to their new multi-million dollar plant at Reisterstown & Painters Mill Roads, Owings Mills, Md., just outside of Baltimore.

In addition to housing the offices for these divisions, the Owings Mills plant represents a large expansion of cup producing and warehousing facilities. The new Owings Mills plant and office building comprises 330,000 square feet of space, with adjacent acreage available for future expansion of new product lines and research facilities. Executive offices of Maryland Cup Corp. are also located at the Owings Mills plant.

## Mansfield Tire & Rubber Selects Site For New Nat'l Fibrit Division Plant

Selection of Springfield as the site for a new manufacturing plant producing molded cellulose-based products by methods entirely new to this country has been announced by James H. Hoffman, president of The Mansfield Tire & Rubber Co. of Mansfield, Ohio.

The plant, will be known as the National Fibrit Division of The Mansfield Tire & Rubber Co. The product, known as Fibrit, is manufactured by methods invented and patented by the Deutsche Fibrit Gesellschaft of Krefeld, Germany. The Mansfield Tire & Rubber Co. has been granted a license for production of Fibrit in this country.

The principal characteristic of the Fibrit process is its ability to produce high quality, low-cost, one-piece hollow products from wood pulp materials in automated machinery. It is said to be lightweight, practically unbreakable and is adaptable to a wide variety of fine finishes and colors.

Establishment of the Fibrit plant represents a step in manufacturing diversification for the Mansfield company which next year observes its 50th anniversary. While the company's principal products are tires and tubes of all types, the company also manufactures rubber rug underlay, tread rubber for tire recapping, synthetic rubber and a variety of items in mechanical rubber goods.

### Stone Container Names Field Sales Manager

Walter K. Barancik has been named field sales manager for the Acme Division of Stone Container Corp., Chicago.

In the new position, Mr. Barancik will administer field sales activities for Stone products in the Greater Chicago area. He had been a salesman at the Acme Division since 1958 and formerly was president and secretary-treasurer for R. Gerber & Co.

### Weyerhaeuser Names Regional Sales Managers

Weyerhaeuser Co.'s Shipping Container Division has announced the appointment of two new regional sales managers.

James L. Flaven will be responsible for sales at the firm's Clayton, Mo., sales office as well as plants at Mt. Vernon, Ohio; New Orleans; Houston and McAllen, Tex.; Three Rivers and Detroit, Mich.

George D. Wardle will be responsible for sales at the Chicago. sales office and plants at Rockford, Ill.; Cedar Rapids; Omaha; Manitowoc, Wis.; and Austin and Cloquet, Minn.

### Westvaco Multiwall Bag Adds to Sales Staff

West Virginia Pulp and Paper Co. has appointed C. Ward Comstock to the position of sales representative for its Multiwall Bag Division.

In his new responsibilities Mr. Comstock will initially service the New York metropolitan area, providing customers with a complete line of Westvaco multiwalls made of both conventional kraft and Clupak extensible paper.

### Carson Elected President Of Hoerner Boxes

Hoerner Boxes, Inc., Keokuk, Iowa, has announced the election of C. M. Carson as president of the company. Mr. Carson has been executive vice president the past two years. His selection was made by the board of directors following the annual stockholders meeting.

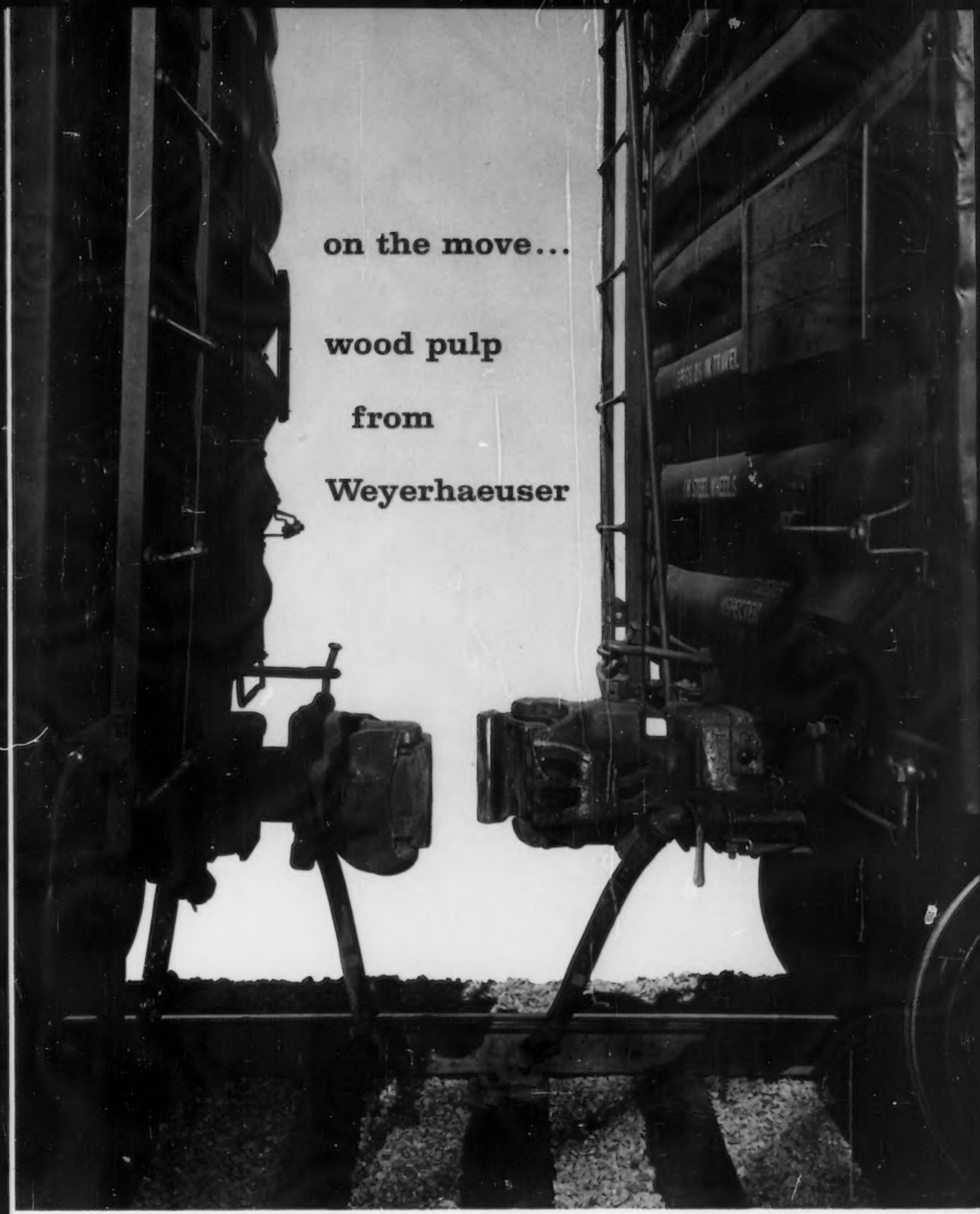
Mr. Carson joined Hoerner Boxes in July of 1947 as a salesman for the Sand Spring, Okla., plant. In August of 1948 he was named manager of the Minneapolis, Minn., corrugating plant, where he served until he took over the post of executive vice president of Hoerner Boxes in October of 1959. Mr. Carson was elected a vice president of Hoerner Boxes in 1948, and served on the board of directors and the executive committee.

Succeeding Mr. Carson as executive vice president will be J. F. Raney, who has held the position of director of marketing at the general office in Keokuk since his move there from Ottumwa in October of 1959. Mr. Raney, a vice president and sales manager of the Ottumwa, Iowa, plant since 1948, joined the company in 1939. He also serves on the board of directors and the executive committee.

WATER COLOR PAINTING BY L. J. A. NEESE

BELOIT'S RESEARCH CENTER, first opened in May of 1961, serves the paper industry with 45,000 square feet of modern plant and facilities. Advancement of technology and understanding for better papermaking are objectives of Beloit's continuing research and development program.

BELOIT IRON WORKS · PAPER MACHINERY · BELOIT WIS. U.S.A.




PHOTOGRAPHY BY GEORGE NORDHAUSEN

Fast service and regular shipments insure your supply.

**Weyerhaeuser Company**

Pulp and Paperboard Division

*now in preparation . . .*

# ANNUAIRE DE LA PAPETERIE FRANCAISE

## [DIRECTORY OF THE FRENCH PAPER INDUSTRY]

**1962 EDITION**

**The Directory**

- lists all French pulp and paper mills, executives, equipment, capacity, type of paper produced.
- contains MAPS of each department in France, with mill locations.
- lists mill suppliers, by products and services.
- lists converters, with products manufactured.
- contains names, addresses, and executive directors of all Associations serving the paper and allied industries.

**PAPER INDUSTRY SUPPLIERS:**

Make yourselves known to European buyers by placing your advertising in the only directory of the French paper industry.

This directory was founded in 1879, and enjoys wide distribution over the Common Market. It will be on the desks of all European executives in the paper industries.

Cost of one page (5" or 125 m/m wide by 7½" or 190 m/m deep) in black and red, $100. This includes a copy of the Directory.

*For further information or to place order, write:*

| | |
|---|---|
| **FRANCE AND THE FRENCH UNION** | 9 Rue Lagrange, Paris 5e |
| **UNITED KINGDOM** | John Eckford-Prossor<br>Stafford House, Norfolk Street, Strand<br>London W.C. 2 |
| **GERMANY** | Herbert Morgenbesser<br>Kohlgarten 3, Hamburg FU |
| **EUROPE, OTHER THAN ABOVE** | John Ashcraft<br>Care of La Papeterie<br>9 Rue Lagrange, Paris 5e |
| **U.S. AND OTHER COUNTRIES** | Lockwood Trade Journal Company<br>49 West 45th Street, New York 36, N.Y. |

**The French monthly publication LA PAPETERIE and the DIRECTORY OF THE FRENCH PAPER INDUSTRY are published by the Societé Ancienne MAISON LHOMME & ARGY, 9 Rue Lagrange, Paris. The French company has specialized for 85 years in the paper industry.**

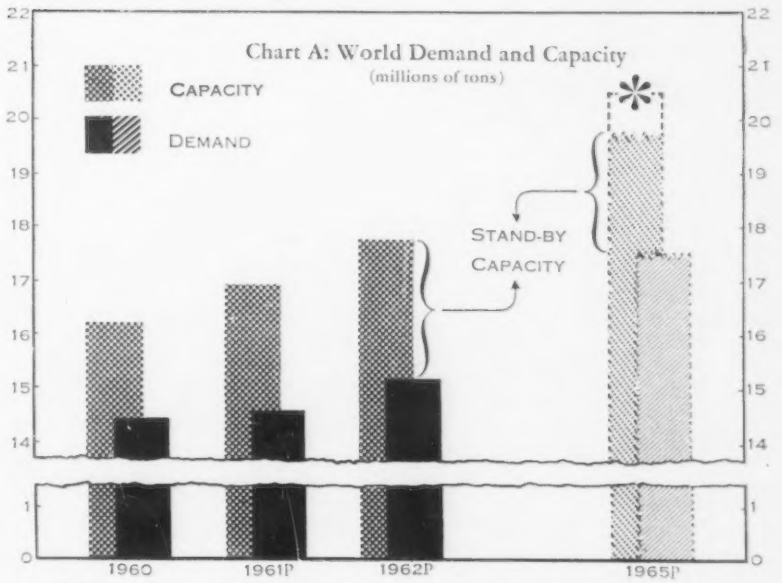
# Current Newsprint Overcapacity Seen to Hold Through 1965

**Assuming completion of a reasonable number of announced projects, indications are there will be no material change in excess of capacity over demand which exists today, says Canadian Newsprint Association.**

Newsprint will be in ample supply for at least five years on a worldwide basis, according to the latest annual review by the Newsprint Association of Canada. Continued growth of demand is expected but expansion of capacity is keeping pace and the current 2½ million-ton excess of capacity over demand is being maintained.

World demand in 1961 did not increase as much as in the boom year 1960 but the addition to capacity was greater. In consequence, the addition to "stand-by" capacity this year has amounted to about 575,000 tons, in contrast to 1960 when the excess of capacity over production decreased by about the same amount.

For 1962 a substantial gain in world demand is expected, amounting to nearly four per cent or 572,000 tons. Capacity, however, will increase by nearly five per cent or 839,000 tons, according to reports of additions, most of which are available now or in process of construction. Similar projection to 1965 is less reliable but according to available information, an assuming completion of a reasonable number of announced projects, there will be no material change in the excess of capacity over demand which exists today.




* *Including increase which would result from continuous operation for all mills in Eastern Canada.*

### Demand Growth Study

A study of demand growth by areas in recent years compares North America and Western Europe, also the Far East and Pacific area and the rest of the non-Communist world. It shows that despite the smaller total consumed in Western Europe the tonnage of increase there has been greater than in North America both from 1951-55 and from 1956-60. For the next five years, however, and for the period to 1975 it is expected that the volume of growth in North America will again be greater.

A feature of the survey is a chart showing the rate of U.S. newsprint consumption, seasonally adjusted, and the performance in recent months. It shows that the rate of consumption turned upwards in March 1961 and has since been rising steadily although the rate of gain seems to have "levelled off" during September and October. This chart includes the turning dates at the tops and bottoms reached in the last three economic cycles. It illustrates that changes in newsprint consumption trend correspond closely with cyclical changes in business.

### European Consumption Remarkable

Detailed examination of Western Europe, country by country, shows that the remarkable growth of consumption in the past 10 years has been shared by all areas. The average growth rate since 1950 has been 7.8 per cent per year compared with 2.2 per cent in the United States.

Analysis of world capacity increase shows that during the last 10 years more than one-half of the total addition has been in North America. From 1956 to 1960, however, Western Europe has added nearly 1.5 million tons, compared with 2.5 in North America, and in the current period 1961-65 Western Europe is expected to add a further 1.5 million tons, compared with 630,000 in North America. It is noted, however, that Canadian capacity of 7,734,000 for 1961 would be increased by a further 700,000 tons as a result of continuous operation of mills in Eastern Canada.

This survey presents a complete world statistical review as in former years, with charts and tables covering demand and supply by area. It gives particular attention to the principal market areas and to capacity of the main international suppliers, notably Canada and the Scandinavian countries. It includes tables of individual data, country by country, and a list of nearly 60 new capacity projects and plans throughout the world.

# Diverse Industries Find Use For Brown's Contract Research Service

**To find out more about its inner workings, we recently talked with Paul M. Goodloe (right), director of this unique service—unique because Brown is one of the very few pulp and paper companies who regularly "rent" their research facilities to "anyone who may have a problem." He also has some further comments about the McKee hydrotropic pulping process.**

Just over a year ago, Brown Co., one of the first firms in the pulp and paper industry to establish (in 1917) an independent Research and Development Department as a major operating division announced that its research facilities and technical staff were being made available to all on a Contract Research basis.

Named by Leonard Pierce, Brown's president, to head the newly-established Contract Research Division was Paul M. Goodloe—no stranger to research himself and previously Brown's director of Research and Development. His task—to form a new division which could function without interference with Brown's own research and development program while at the same time utilizing Brown's extensive research facilities located in Berlin, N. H. Here's what he had to say in reply to our questions:

*Dr. Goodloe, How does Brown's Contract Research service work?*

Our program of Contract research takes several forms, any of which is available in accordance with client requirements, and all of which are extremely flexible. For example, for those who desire them, Brown can provide all the facilities of its Research and Development Department, including pulping pilot plant, bleachery, and its fully-equipped experimental paper machine. With these physical facilities, we furnish skilled operators and technicians who work under the direction of the client's own supervisory staff. Under this form of program, the client's research effort is conducted and directed by him personally and he holds the secret to the combination used.

*That's one form. What's another?*

For others who wish to delegate responsibility, Brown follows a "blueprint" of specific instructions, rendering the results to the client for his own evaluation. No problem solving is involved—only skilled operation by our technicians of the physical facilities.

Still another plan comprises a coordinated effort between Brown and client with mutually-pooled talents from both parties. Under such a program, we can make available on a consulting basis, senior chemists who are specialists in particular fields.

*That makes three. Are there any more?*

Well, finally, a client may always drop the whole "ball of wax" into our laps, usually under an open-end arrangement providing for periodic reporting of progress with billing as agreed. The development of either a new product or a process might fall into this category.

*How does your Contract Research service benefit the client?*

We have a background of the know-how derived from over 40 years of research in nearly all aspects of the pulp and paper field. Consequently, savings in time as well as money have accrued to our clients because on more than one occasion, the work requested had already been done in part by the Research Department in earlier years. The result was that we could give effective guidance in establishing the specific program to be followed. And this too, without the necessity for heavy expenditures for equipment and personnel which would otherwise have been required by these clients. We can provide a real service to small companies in particular, or groups of companies, who do not have their own research facilities.

We have also regrouped and reoriented our staff thinking along lines related not only to pulp and paper, but to broader and more diverse fields as well.

Thirdly, by keeping the scale of operations as small as possible and by providing detailed records of conditions, preliminary work can be at minimum expense to the client. Evaluation of wood species, for example, may be done in Brown's one-cubic foot digesters which are also adaptable to studies of modification of standard cooking processes or entirely new methods of cooking. If results warrant, these pulps may then be bleached and refined for further evaluation. The ultimate step to follow, results warranting, would be semi-commercial runs in the 120-cubic foot digester followed by bleaching if desired, refining, and a semi-commercial run on our experimental paper machine.

*Speaking of equipment, what do you have in the way of physical facilities?*

Our pulp pilot plant includes a four-knife chipper with five-foot disk; a cutter for preparing agricultural wastes and other basic cellulosic materials; the 120 cubic foot digester already mentioned for kraft, sulphite or semi-chemical pulping; disk refiner; three-tube Pandia digester—which, along with the straw cutter, is the property of Black-Clawson; knotter; fine screens;

Impco vacuum washer; bleaching and treating tanks; and pulp cleaners. All equipment in contact with pulp, except parts of the Pandia system, is Type 316 stainless.

Stock preparation equipment includes three 1000-lb. Jones beaters and one 500-lb. stone roll beater. Refining is done with either a Pony-Monarch or a Baby Jordan. All equipment is designed to produce a product which may ultimately be made in an operating mill.

*Would you give us a brief rundown on the machine?*

Certainly. The Pusey & Jones experimental paper machine has a wire width of 45 inches and maximum trim width of 40 inches. It is equipped with four flat suction boxes, a suction couch, one suction press, one plain press, a 60-inch Yankee dryer, a Clupak extensible paper unit (property of Clupak, Inc.), a vertical size press and a six-roll calender stack. We can vary operating speeds from four to 200 f.p.m. and produce paper of almost any type or weight desired.

*How about laboratory facilities?*

Laboratories available at Brown include those for physical and chemical testing, a viscose lab where pulps may be evaluated by both slurry-steeping and sheet-steeping processes, a microscopy lab, and a cellulose derivatives laboratory.

*Understandably, the details about any of the projects are held confidential, but perhaps you can name some of the companies who have contracted for your services?*

That's correct. Among clients who have utilized the facilities during our first year of operation are the Forest Products Division of Owens-Illinois, Clupak, Inc., Rogers Corp., Mountain Paper Products Corp., Black-Clawson Co., Corn Products Sales Co., Dorr-Oliver, E. I DuPont de Nemours, Walter Kidde Engineers—Southwest, and Ryegate Paper Co. That our program is successful has been amply demonstrated by the fact that several of these companies have returned second and even third times for other projects.

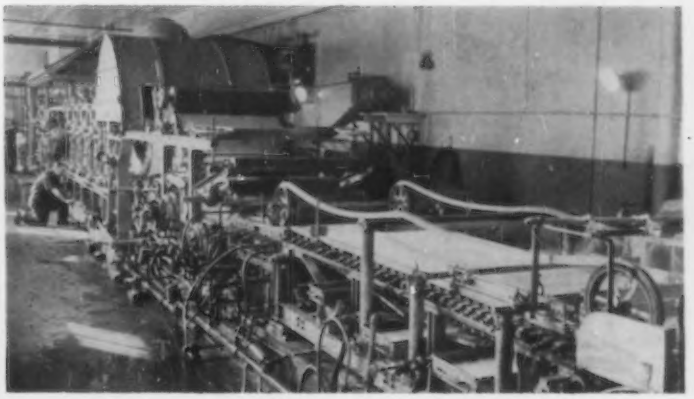
*If a potential client comes to you with a project that you aren't equipped to handle, what happens?*

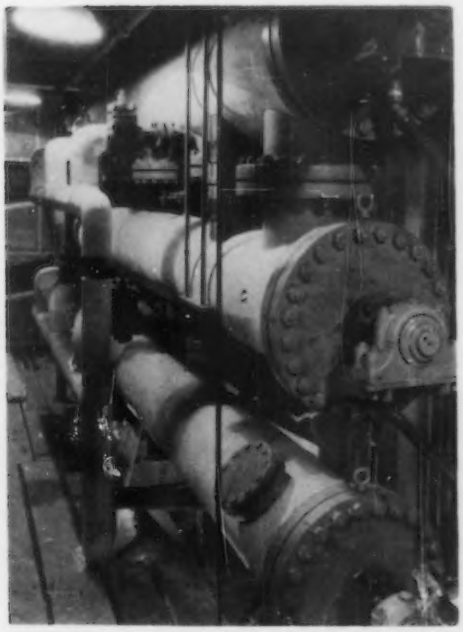
We would decline to accept the project rather than accept it and subcontract it. If, on the other hand, in an overall project, we see that there may be one phase we would not be equipped to handle, we would subcontract for that phase only.

*One more question, Dr. Goodloe. There has been quite a stir lately about the development of a hydrotropic pulping process, to quote loosely "at Brown Co. by Dr. Ralph H. McKee." Would you care to elaborate on this?*

The news releases to which you refer were not made by Brown Company—We are free to state only that testing of Dr. McKee's process was contracted at our research facilities by Walter Kidde Engineers—Southwest, Inc., who have authorized us to so repeat. However, in keeping with our policy of holding in confidence all client relationships, we cannot make further comments.

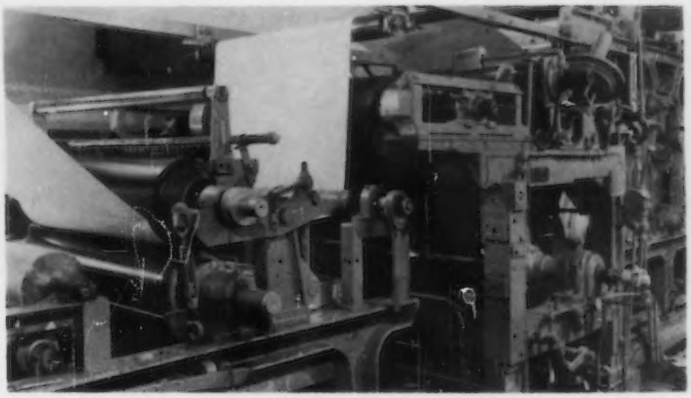
**The experimental paper machine, as viewed from the wet end contains a five foot Yankee dryer.**





**Pulping equipment in the research department includes this three-tube Pandia continuous digester.**

**Close-up of the vertical size press and the Clupak extensible paper unit (in back of size press)**



# First Modern Mill Designed for News from Waste Papers

**Garden State Paper Co. starts up new mill to make newsprint from old newspapers using process developed by the owner, R. B. Scudder of Newark Evening News.**

**Paul D. Van Derveer,**
Associate Editor,
Paper Trade Journal

The production of newsprint from waste paper, often said to be technologically feasible but economically unsound, has begun at a mill designed expressly for this purpose. Named the Garden State Paper Co. and located in Garfield, N. J., on the Passaic River, this is the first modern mill designed to utilize waste paper as the major fiber constituent in the manufacture of newsprint. It utilizes a deinking process developed after many years of experimentation by Richard B. Scudder, publisher of the Newark Evening News, and his associates.

This process is unique in that it was initiated and developed by people who are relative newcomers to the paper manufacturing industry. Richard B. Scudder, the publisher, and Bob Illingworth, engineer of the Newark Evening News are newspaper men, first and foremost. However, they are the men responsible for bringing this deinking process into commercial use and must be rated as experts in that field of the paper industry.

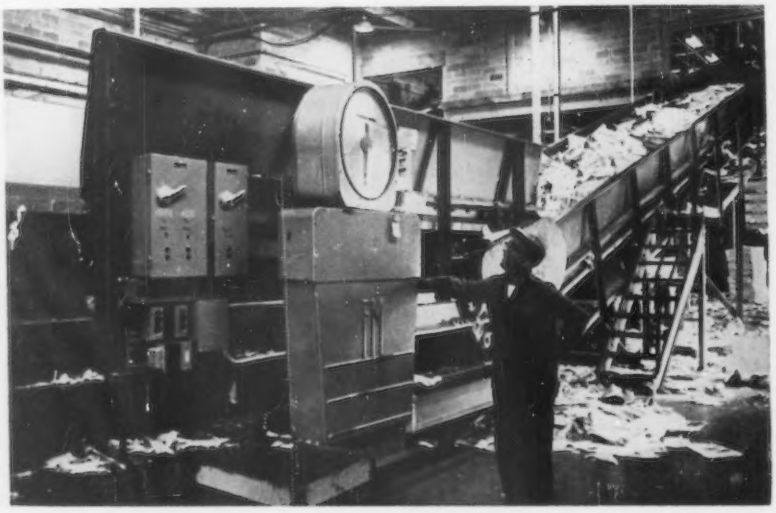
In an interview with PAPER TRADE JOURNAL, Mr. Scudder discussed the premise that deinking of newsprint has been technologically feasible for some time. He pointed out "To the best of my knowledge, no one has been successful in deinking waste newspaper well enough to make satisfactory newsprint, except in our laboratories."

Mr. Scudder has been quoted in some newspaper items as saying that costs per ton of newsprint as produced by this process would be under $80 per ton. When questioned on this point, he said, "We still believe this to be possible. Of course, at this point, having just started up, we are not in this cost range yet."

R. B. Scudder

In comparison to the biggest and fastest modern day newsprint machines (over 300 inches wide, 2000-2500 f.p.m.) Garden State's machine is not impressive in size, 230 inch wire; or top speed, 1500 f.p.m.; or production, 185 tons per day. However, in view of the fact that this mill is based on a commercially unproven process, it is a bold, albeit carefully calculated, gamble. It is not intended to take top honors in a newsprint production contest. Instead it is designed as an extension to the intensive development work that has already gone into the process.

And now that the machine is in production, it appears the gamble is paying off. The paper machine and deinking process are operating as well as can be expected, producing at the anticipated cost levels. Start up difficulties have been encountered and overcome. Now, the machine is producing newsprint of better than



**CONVEYORS lead to one of two deinking pulpers. Conveyor section to which scale is attached alternates between inclined conveyors.**

average quality at a rate of over 125 tons per day, and is operating continuously at speeds of better than 1000 f.p.m. (mechanically proven at over 1500 f.p.m.).

The product is clean and is in the mid-range of commercial newsprint brightness and strength. It has been printed by several publishers with good results and favorable comments on strength. Although the Newark Evening News is owner, this is not a captive mill. The News will use less than 10 per cent of its production.

### Research on Deinking

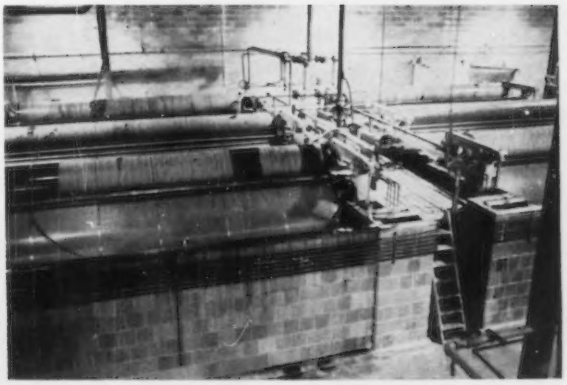
As to the deinking process which makes this mill economically feasible, John Rich, general manager of Garden State and Mr. Scudder, speak quite freely, except to name the chemical used to free the waste paper of ink. Of this chemical, they say only that it acts on the ink in such a manner that it can be removed by washing. The element of risk involved in bringing the deinking process out of the laboratory and into commercial production was minimized by long years of experimentation, by pilot plant work and finally by trial runs on commercial equipment. Initial research was begun in 1946 and has been carried on since then by Mr. Scudder, assisted by Robert Illingworth, vice president of Garden State and engineer for the Newark Evening News. Some of the experimentation was carried out by the Herty Foundation, and later by the College of Forestry at Syracuse University. Pulping and paper machine trials have been made periodically at Syracuse since 1953, and the work is still continuing.

The process was also tested on commercial equipment before the new mill was built. In 1956 temporary deinking equipment was set up at Pejepscot Paper in Brunswick, Me. and the pulp produced by the process was made into newsprint with the mill's standard equipment. This newsprint was printed by several different publishers with favorable results. Another trial was conducted in 1959 at Fitchburg Paper in Fitchburg, Mass. The mill's existing deinking equipment and paper machine were utilized and the trial continued for a week to investigate the possibility of ink buildup on equipment. Results were encouraging.

### Commercial Production

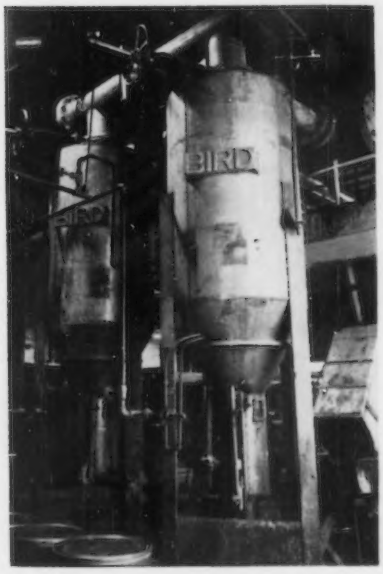
The next step was to go into commercial production and so financing was arranged and construction of the mill was started in 1960 on a 10 acre plot beside the Passaic River in Garfield, N. J. The site included

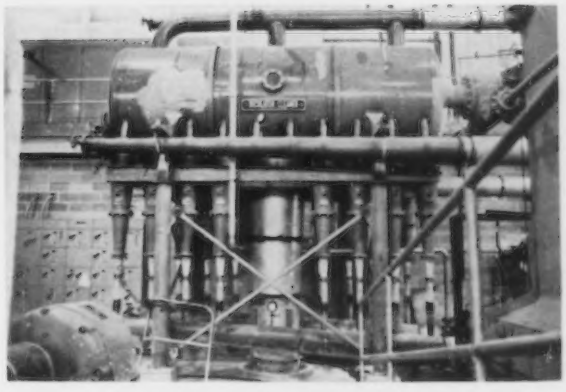
**WASTE NEWSPAPER being dumped into one of the deinking pulpers. Deinking chemical and water at 135°F are also fed to these pulpers.**



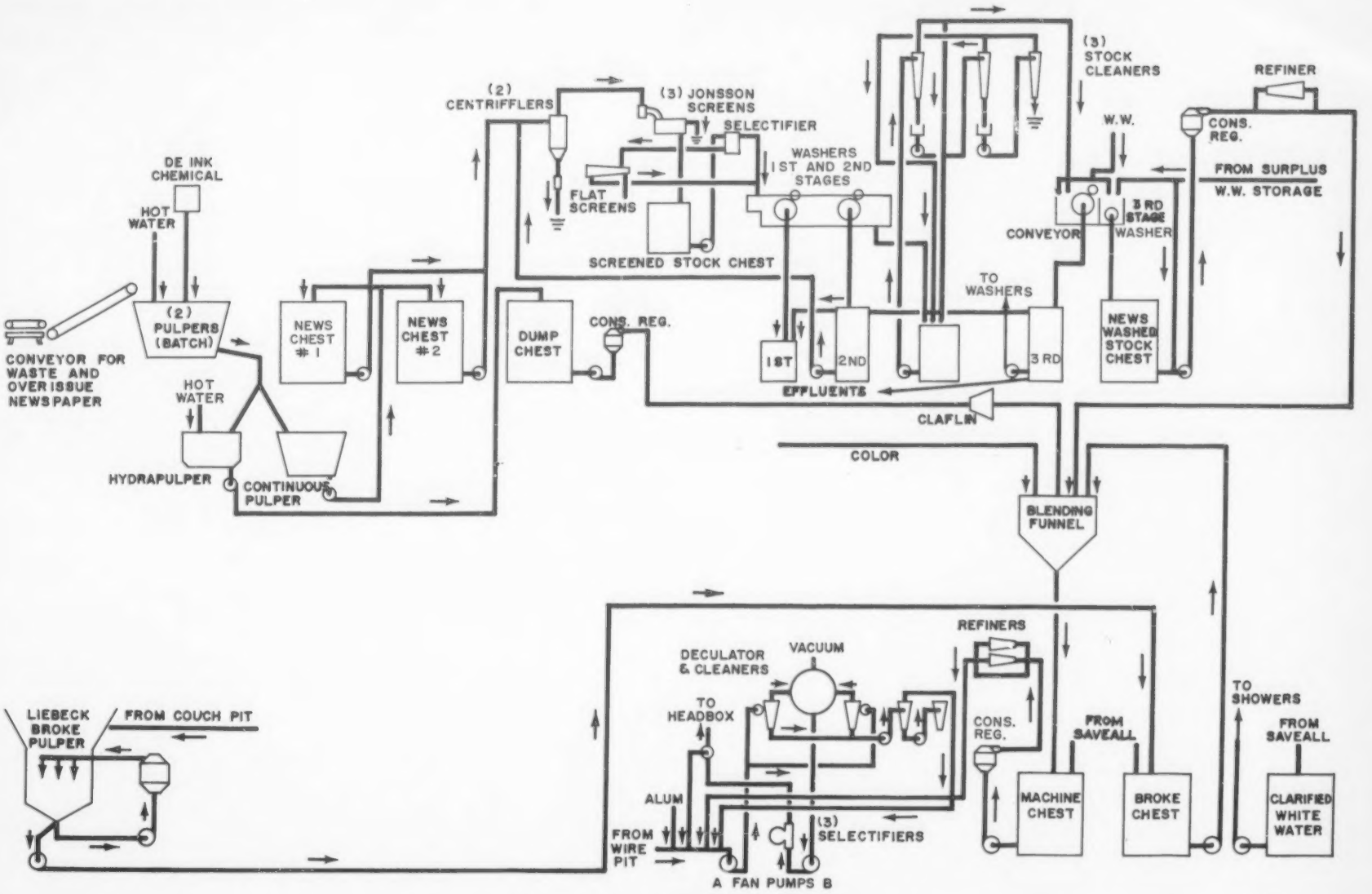
**TWO LINES of Lancaster washers where ink is washed out of stock. Battery of stock cleaners is in line ahead of third stage.**

**CENTRIFFLERS are used for coarse cleaning immediately after pulping.**



**DECULATOR — Centricleaner combination gives final cleaning to stock just before screening prior to the headbox.**




**FLOW DIAGRAM** for pulping and stock preparation. Hydrapulper is used to break up unbleached sulphite pulp in normal operation.

a modern steam plant which had been operated as part of the Forstmann Woolen Mills. The new two-story building is of steel and concrete construction with the paper machine and process departments on the second floor. Besides the paper machine, the building houses general offices, waste paper storage, finished roll storage, stock preparation, finishing room and a machine shop. A loading platform for both rail and truck shipments runs nearly the entire length of the building on the south side. Provisions have been made in the design of the plant to expand the north side of the building in the event a second paper machine is added. Serving as consulting engineers for the project was Roderick O'Donoghue & Co. They supervised construction and purchase of materials and equipment. E. A. Mahannah of that firm was project engineer. General contractor for the job was Joseph L. Muscarelle, Inc.

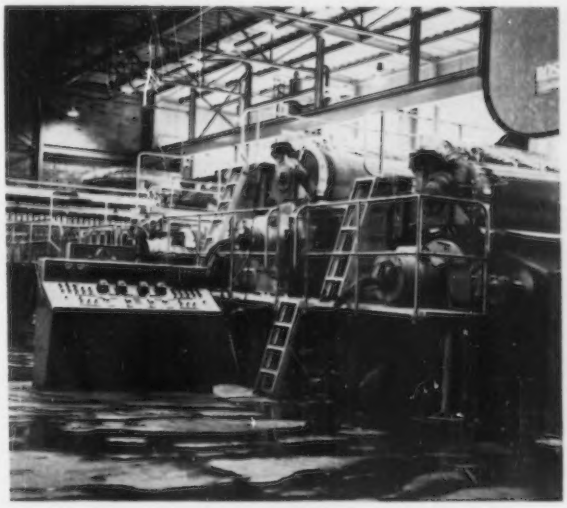
**VIEW OF RICE BARTON paper machine. It has a 230 inch wire and top design speed of 1500 f.p.m. Maximum production is about 185 tons per day.**

## Pulping Operation

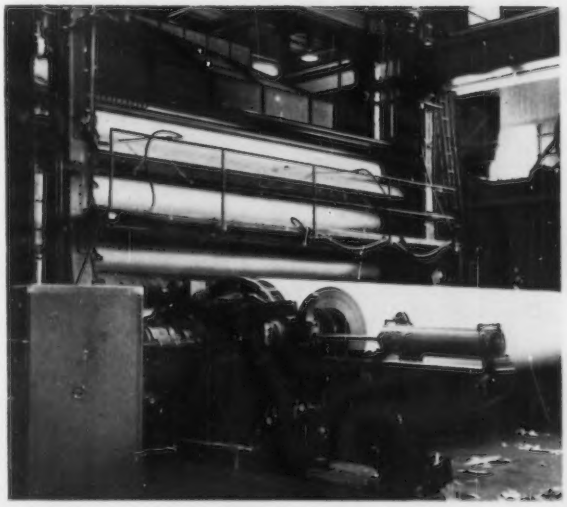
Waste newspaper and unbleached sulphite pulp are the two fiber components utilized by Garden State. The sulphite is broken up in a Hydrapulper and is pumped from there to a dump chest. It is drawn from there as required through an in-line consistency regulator and a Claflin refiner to a blending funnel where the several furnish components are mixed.

The waste newspaper is moved from storage by fork lift truck to a traveling conveyor on which is mounted a scale to weigh and record the amount of material. This conveyor is moved on tracks in the floor to either one of two inclined wood slat conveyors feeding the two waste paper pulpers. The pulpers, into which hot water (about 135°F.) and the mysterious deinking chemical are fed, each have a capacity of about 9000 lbs. Operated alternately, the two pulpers are equipped with 500 h.p. motors. They were made by Edge Wallboard Machinery, Inc. Pulping consistency is 6 per cent. The two batch operated de-inking pulpers discharge into another Edge pulper operating continuously. A relatively constant level is maintained in this pulper by automatic operation of the discharge valves on the batch pulpers. The continuous pulper is equipped with a 200 h.p. motor, junker and ragger. Water is added to reduce consistency to 4½ per cent. This pulper discharges through 5/16 inch perforations to either of two storage chests.

From storage, the pulp slurry is



**WET END of machine with press section in foreground. There are two suction presses. Low cost pick-up arrangement is unusual.**



**REEL and eight roll calender stack. Machine is also equipped with breaker stack between dryer sections.**

pumped to two Centrifflers, then to three Jonsson screens and a screened stock chest. It is pumped from this point to a Selectifier screen and then to the washers. There are two washer lines, each consisting of three Lancaster washers with cylinders of 60 inches diameter by 220 inches face and rubber press rolls. Each washer is followed by a repulper. The pulp goes to a battery of Centricleaners between the second and third washing stages, eliminating the cost of an additional decker. There are 56 primaries, 9 secondaries, and two tertiaries. Accepted stock goes to the third stage washer, then to the washed stock chest. It is pumped from here through a Jones Adapta-Plug refiner to the blending funnel at about four per cent consistency. Freeness of the waste news stock is in the range of 200-230 C.s.f.

### Cleaned and De-aerated

In addition to the waste paper and sulphite pulps, broke and color are also added at the blending funnel. Both wet and dry broke as well as couch pit stock are pulped in a Liebeck broke pulper located below the paper machine calender stack. The ratio of waste paper to virgin pulp is 85/15. Currently, freeness at this point is maintained in the range of 180-200 C.s.f.

From the blending funnel the stock drops to the machine chest then is pumped through an in-line consistency regulator to two Adapta-Plug refiners. From here the stock goes to the suction of fan pump A (11,000 g.p.m. at 115 ft. head) which feeds a Deculator-Centricleaner combination. There are 16 primaries, 3 secondaries and one tertiary.

The cleaned, deaerated stock drops to fan pump B (10,800 g.p.m. at 75 feet head) which pumps stock through three Selectifier screens to the headbox. Recirculation from this line together with accepts from the secondary and tertiary cleaners and alum are all fed to the suction side of fan pump A.

### Paper Machine

The Rice Barton paper machine has a 230 inch wire and has a top speed of 1500 f.p.m., although it has been designed so that it may later be increased to 2000 f.p.m. with minor changes. The machine has a pressure headbox made by Beloit. There are 28 table rolls and six suction boxes. The press section consists of two straight through suction presses with granite top rolls. The transfer

J. H. Rich

of the sheet from the wire to press section is accomplished by a stream of air blowing from a short length of pipe located a few inches below the wire at the transfer point. The stream of air blows a strip of the web to the press felt which carries it through the press section; then it is carried through the dryers by rope sheaves. The strip then is widened until the full sheet width is feeding through.

There are two dryer sections separated by a breaker stack; the first has 30 paper dryers and 4 felt dryers; the second section has 6 paper dryers and 2 felt dryers. The dryers are followed by an eight roll calender stack and the reel which handles rolls up to 48 inches diameter.

The winder followed by a roll lowering table together with shaft puller is by Cameron Machine Co. The machine's width is sufficient for 3½ standard newsprint rolls. The rolls ranging in diameter from 34 to 40 inches are lowered by elevator to finished roll storage on the ground floor below.

### Power and Drive

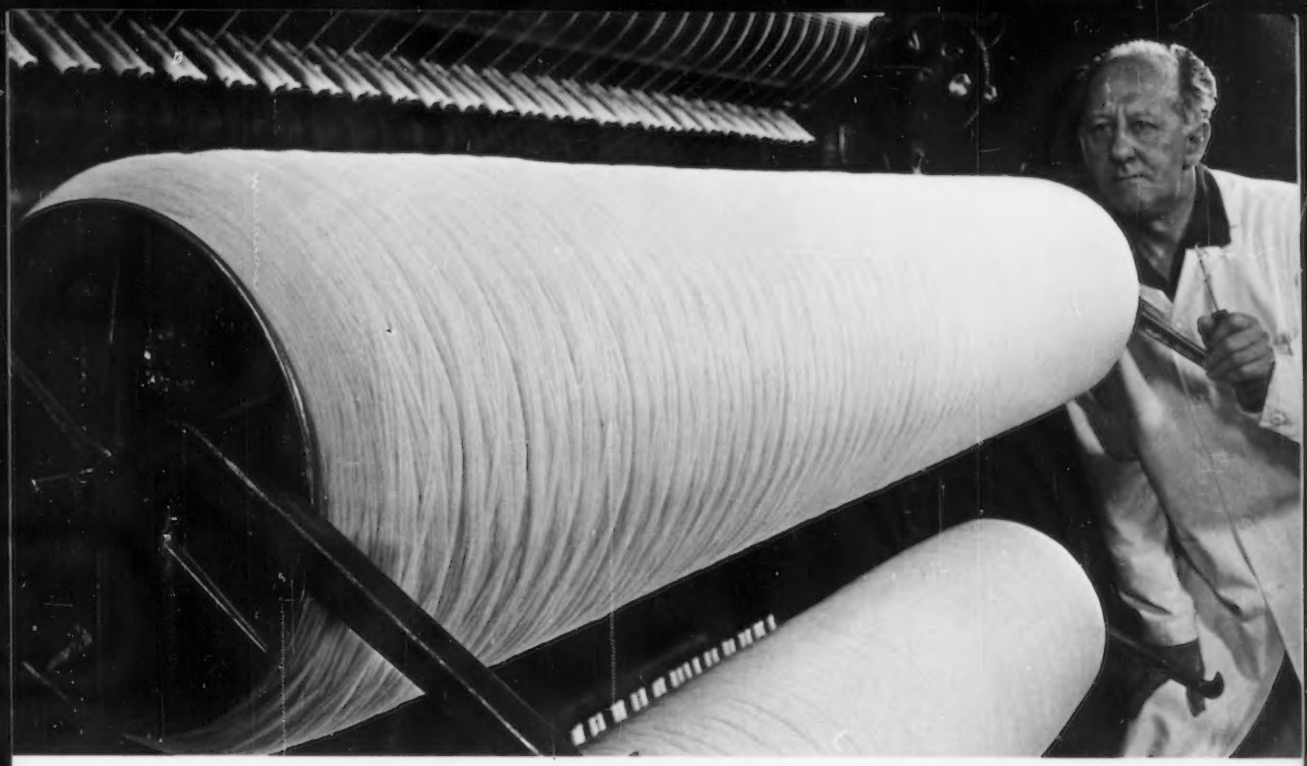
Steam is supplied to the mill from the existing 425 lb. pressure steam plant. Steam turbine drive for the machine is by Worthington Corp. The machine is driven through a cone pulley and Extremultus belt system from a line shaft on the ground floor. The machine has a Bowser pressure lubrication system. Vacuum is supplied by four Nash vacuum pumps driven by a single 800 h.p. Westinghouse motor.

### Experienced Personnel

The Garden State operation is reinforced by personnel with many years of experience in the paper industry. Mr. Rich, general manager, previously held positions at Riegel and at Newton Falls Paper. Donald P. Finnegan, paper mill superintendent, formerly worked for Great Northern and Bowaters. Clyde A. Benson, technical superintendent, was with Mead Corp., and has done consultant work. James E. Raymond is in charge of maintenance and the power plant. Ralph R. Fay, office manager, is in charge of personnel and purchasing as well. He was with Continental Can and Robert Gair previously.

**PRINCIPAL SUPPLIERS**

| | |
|---|---|
| Broke Pulper | E. D. Jones |
| Claflin refiner | Bolton-Emerson |
| Consistency regulators | Fischer & Porter |
| Conveyors | Fairfield Engineering Co. |
| Deculator, Nash vacuum pumps | Clark & Vicario |
| Deinking pulpers, continuous pulper | Edge Wallboard Machinery |
| Flat screens | Improved Machinery |
| Headbox | Beloit |
| Hood and air systems | J. O. Ross |
| Hydrapulper, washers, Selectifier screens | Black Clawson |
| Jonsson screens, Centrifflers | Bird Machine |
| Lubrication system | Bowser |
| Magnetic flowmeters | Foxboro |
| Motors | Westinghouse |
| Paper machine | Rice Barton |
| Pumps | Goulds |
| Refiners, Sween-Pedersen saveall | E. D. Jones |
| Roll headers and weighing equipment | Williams & Wilson Ltd. |
| Roll lowerator | Gifford-Wood |
| Steam control system | Ross-Midwest-Fulton |
| Stock cleaners | Bauer |
| Winder | Cameron |
| Winder drive, helper drives | Reliance |



# What's the difference?

Lot 2901 Lot 2935 Lot 2968

There is none. Lot 2901, made last February, is the same as Lot 2968 just off the carding machine.

What does this mean to you? It means that the next felt you order from Huyck will be of the same high quality and will perform just as well as the one now on your machine.

At Huyck, we have designed and built unique quality control instrumentation and developed extraordinary production methods for our fiber blending, carding and spinning operations. These Huyck exclusives assure absolute uniformity of the yarn from lot to lot, from order to order, from year to year.

This specific phase of complete quality-controlled manufacturing is one more reason why it's just "good business" to buy Huyck Felts.

**HUYCK FELTS**

Huyck Felt Co., Rensselaer, N. Y.; Aliceville, Ala. Division of Huyck Corporation

In Canada: Kenwood Mills Limited, Arnprior, Ontario

FIRST IN FELTS SINCE 1870

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| Flat screens | Improved Machinery |
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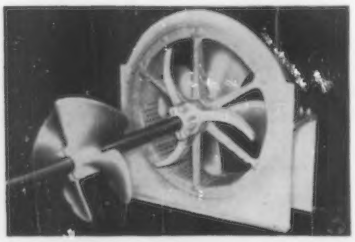

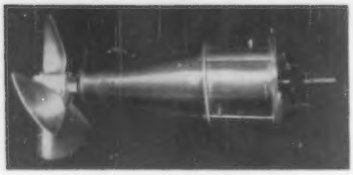

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# PJT NEWS OF SUPPLIERS

George McDougall

Charles Cox

**Daniel Construction Co.**, at a recent meeting of the board of directors, elected George McDougall and Charles Cox vice presidents. Mr. McDougall will continue to manage company operations in South Carolina. Mr. Cox, manager of sales, will continue in that capacity with his headquarters in New York.

Mr. McDougall has been with Daniel Construction Co. since 1945 and is a graduate of the University of Alberta. In 1948 he became a project manager and in that capacity supervised such multi-million dollar jobs as the Bowaters newsprint mill at Catawba, S. C.; three plants for Bigelow Sanford Carpet Co.; Owens Corning Fiberglas at Anderson, S. C.; American Thread Co.'s plant at Sevier, N. C.; Southern Paperboard Corp. at Savannah, Ga.; Cherokee Textile Mills at Sevierville, Tenn.; Delta Finishing Co., Cheraw, S. C.; and Whitehorse Mill, Greenville, S. C. In 1959 he was placed in charge of all operations in South Carolina.

Mr. Cox has been with Daniel for the last five years. He is a graduate of Drexel Institute of Technology and for several years was an engineer with Chemstrand.

Carl G. Englund, vice president, retired as of October 1, 1961, as manager of Daniel Construction Co. of Florida. He will continue to work out of Daniel's Jacksonville office as a consultant. He has been succeeded by R. C. Englund as manager of company operations in that state.

**Arizona Chemical Co.** has named H. G. Arlt, Jr., manager of its research laboratory at Stamford, Conn.

Dr. Arlt joins Arizona after eight years service with American Cyanamid Co. Arizona, a joint venture of Cyanamid and International Paper Co., is a leading producer of tall oils and tall oil products.

In addition to the Stamford facility, Arizona also has laboratories in Panama City, Fla., and Linden, N. J. Its manufacturing plants are in Panama City and Springhill, La.

**Olin Mathieson Chemical Corp.** has named Vernon Woodside to the newly created position of manager for pulp and paper industry sales in the chemicals division.

The appointment is part of a reorganization by Olin of its industrial chemicals marketing department.

Mr. Woodside came to Olin in 1936 and was formerly manager of sales development, heavy chemicals. He has had more than 35 years experience in the industry and is the author of numerous articles on paper technology. He will continue to make his headquarters in Baltimore.

R. F. Sherman

Arthur Cliff

**Black-Clawson Co.**, New York, has appointed Richard F. Sherman sales engineer of the Dilts Division, Fulton, N. Y.

Mr. Sherman will handle all slitter-winder sales in the southern states for Dilts' converting line of winders and the winders manufactured by Black-Clawson's Paper Machine Division, Watertown, N. Y. He comes to Black-Clawson with 15 years experience in the sales and service of slitter-rewinders.

Arthur Cliff has been appointed field service engineer with the Hamilton, Ohio, based Air Systems Division of Black-Clawson.

Mr. Cliff has a 28-year background in industrial heating and ventilating and his most recent experience, before coming to Black-Clawson, was in air handling for the paper industry.

# Figures of the Week

**PAPER PRODUCTION RATIO REPORT—American Paper & Pulp Assn. Figures**

(Production as per cent of normal capacity)

COMPARATIVE WEEKLY SUMMARIES

| | | | | | |
|---|---|---|---|---|---|
| | Nov. 11 | Nov. 18 | Nov. 25 | Dec. 2 | Dec. 9 |
| 1961 | 94.7r | 94.6r | 90.5 | 94.9r | 93.5 |
| | Nov. 12 | Nov. 19 | Nov. 26 | Dec. 3 | Dec. 10 |
| 1960 | 96.9 | 91.3 | 86.7 | 93.4 | 93.5 |

r Revised.

COMPARATIVE MONTHLY SUMMARIES

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Year Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1960 | 96.5 | 97.7 | 98.1 | 96.9 | 97.6 | 96.1 | 81.2 | 91.7 | 89.1 | 94.8 | 92.0 | 80.2 | 92.7 |
| 1961 | 87.9 | 90.0 | 91.2 | 91.2 | 91.6 | 91.3 | 78.0 | 90.5 | 88.2 | 94.2 | 94.0‡ | | |

‡ Preliminary.

COMPARATIVE YEARLY SUMMARIES

| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 |
|---|---|---|---|---|---|---|---|---|
| Year to Date | 92.0 | 96.7 | 98.5 | 91.1 | 87.4 | 92.9 | 93.8 | 90.0 |
| Year Average | 91.6 | 96.2 | 97.9 | 90.4 | 87.0 | 92.2 | 92.7 | |

*All of the above data is based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available.*

**PAPERBOARD OPERATING RATIOS†—National Paperboard Assn. Figures**

COMPARATIVE WEEKLY SUMMARIES

| | | | | | |
|---|---|---|---|---|---|
| | Nov. 11 | Nov. 18 | Nov. 25 | Dec. 2 | Dec. 9 |
| 1961 | 96 | 97 | 93 | 90 | 95 |
| | Nov. 12 | Nov. 19 | Nov. 26 | Dec. 3 | Dec. 10 |
| 1960 | 92 | 89 | 81 | 79 | 91 |

COMPARATIVE MONTHLY SUMMARIES

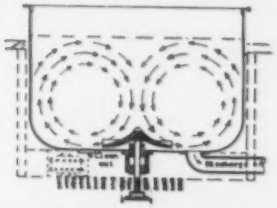
| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Year Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1960 | 92 | 95 | 94 | 93 | 94 | 92 | 78 | 94 | 88 | 93 | 86 | 73 | 89 |
| 1961 | 89 | 89 | 92 | 91 | 92 | 94 | 78 | 95 | 92 | 98 | 94 | | |

† *Per cent of operation based on "inch-hours" reported on a 6-day basis to the National Paperboard Association.*

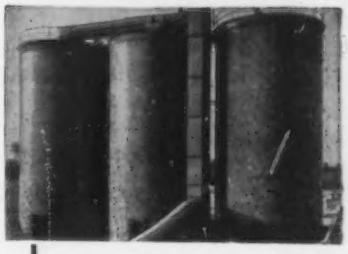
**SUMMARY OF PAPERBOARD STATISTICS—National Paperboard Assn. Figures**

| ITEM | WEEK ENDING Dec. 2, 1961 | WEEW ENDING Dec. 9, 1961 | CUMULATIVE TO DATE January 1, 1961 to December 9, 1961 |
|---|---|---|---|
| % Activity | 90% | 95% | 92% |
| Total | 331,983 | 338,958 | 15,732,779 |
| Containerboard—Domestic Use | 180,658 | 171,794 | 8,108,423 |
| Liner | 121,647 | 112,775 | 5,418,647 |
| Corrugating Material | 55,401 | 54,494 | 2,456,538 |
| Chip & Filler Board | 3,610 | 4,525 | 233,238 |
| Boxboard—Domestic Use | 95,336 | 98,834 | 4,718,766 |
| Folding | 54,913 | 60,996 | 2,815,700 |
| Set-Up | 30,525 | 9,907 | 464,039 |
| Special Food Board | 55,989 | 27,931 | 1,439,027 |
| Other Paperboard | 24,854 | 68,330 | 2,905,590 |
| Containerboard Type | 31,135 | 35,235 | 1,398,903 |
| Boxboard Type | | 33,095 | 1,506,687 |
| Total Orders | 346,452 | | |
| Received | 484,863 | 351,763 | |
| Unfilled End of Week | | 497,784 | |


TEN Repeat Orders for Seven APMEW Beating-Brushing Aquabrushers and Three APMEW #24 Agitators, and they advise: "I want you to know that we sincerely appreciate your cooperation and efforts in rebuilding our stock preparation in the beater room. **We are very, very happy with APMEW equipment.** We got good delivery, the prices were right, and in less than six (6) months, we have a practically complete new beater room. We are proud of it." The Same Valuable Results can be accomplished in your Mill.



**APMEW, INC.**
363 PATENTS
P. O. Box 1, Glens Falls, N. Y.
*QUICK DELIVERIES of ONE WEEK*



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Pensacola, Seattle,
Montreal, Vancouver

**CHAS. T. MAIN, INC.**
CONSULTING ENGINEERS SINCE 1893

PROCESS STUDIES, DESIGN, SPECIFICATIONS
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**PULP AND PAPER MILLS**

STEAM, HYDRAULIC AND ELECTRICAL
ENGINEERING REPORTS, CONSULTATION,
VALUATIONS

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CHARLOTTE, NORTH CAROLINA

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**HORIZONTAL SIZE PRESS**

- Clean
- Sturdy
- Adaptable to all applications of surface additives

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THE **SANDY HILL**

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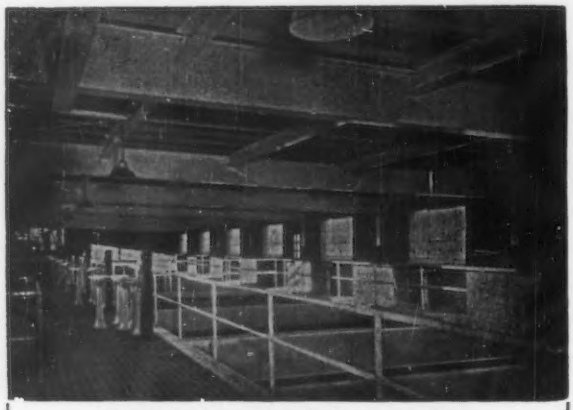

Concrete Gravity Air-Water-Wash type water Filtration Plant producing, at low cost, water with turbidity 0, color under 5 and iron 0.05 p.p.m. Fe.

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All other types of water treating systems, including strainer valves, air wash systems, filter sand and anthracite beds and all filter repair and replacement parts. Over 50 years experience building new and modernizing old water treatment plants.

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METALS — I.B.B.M. all iron, bronze or stainless steels, body parts plain or rubber lined.

*The photo of 24" Fig. 241 I. B. B. M. valve while illustrating the gate bottom wedge system for forced gate seating and "GUILLOTINE" edge for shearing fibre at seat also shows the packing box and yoke as separate units. Both adjustable.*

- The "FAST THREADED" screw stem and ball bearing speeds valve operation.
- The packing box is extra deep, is adjustable and provided with specialized lubricated packings and special type gland and compression bolts.
- The yoke mountings are such that yokes for various methods of gate operation are interchangeable.
- Replaceable gate edge shoes are used in valves 10" and larger. These shoes are of special value when valves are installed stem and pipe horizontal.

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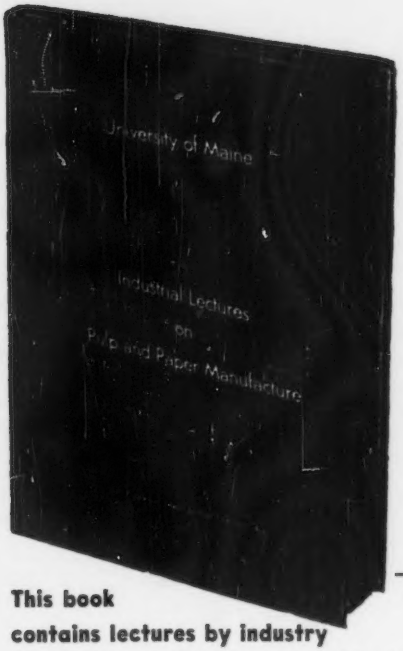
**RECORD FOUNDRY & MACHINE COMPANY**

LIVERMORE FALLS, MAINE, U. S. A.

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Sulfite Acid Preparation
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Neutral Sulfite Semi-Chemical Pulping
Soda Pulping
Kraft Pulping
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Waste Paper, Its Collection and Usage
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The Dyeing of Paper
Coarse Papers Bag and Board
Coarse Papers
Sanitary Tissues
Instrument Applications in Pulp and Paper Mills
Fourdrinier Paper Machines—Wet End
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**TECHNICAL SERVICE AND SALES**

There is an opening near you for a career in selling or servicing a technical product. Pulp and paper or Sales Experience required. Confidential interviews at our expense and your convenience.

Write Box 61-250
Care of Paper Trade Journal
Our Employees know of this advertisement.

F-5

**HELP WANTED**

Wanted — Mill Superintendent, ex'p'd. in cyl. grades, incl. folding, chip, jute, patent coated, machine coating. Address reply to Box 61-244 care Paper Trade Journal. D-25

Immediate position open in Supervision and Research and Development Department of absorbent specialty mill located in Midwest. Prefer man with degree in chemistry and some paper mill experience. Send resume, salary requirements to Rochester Paper Co., Box 185, Rochester, Michigan. D-25

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Machine Tender
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Sheet Cutter Operator
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For Central New Jersey paper mill. Excellent working conditions, fringe benefits. Please state full particulars and expected earnings. Address reply to Box 61-251, care Paper Trade Journal. J-15

Pulp and Paper Mill has opening for graduate Civil Engineer. Prefer 2 to 5 years pulp and paper mill experience. Salary commensurate with contribution. Excellent growth opportunity. Send detailed resume of experience and education in confidence to:

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P. O. Box 488 West Monroe, Louisiana

J-8

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**Production executive — conversion of boards, paper & film. Well versed in heading up all production functions in an organization; or reorganization deal. Multiple manufacturing units. Employed — wishes change for challenging opportunity. Box No. 61-9 care Paper Trade Journal.** D-25

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**FOR SALE**

John Waldron Micro-jet Coater. 108" Face, 1000 FPM, 150 Ft. Tunnel Dryer. Air Knife Coater complete with all Motors, Controls and Fans. Excellent Condition.

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FOR FURNISHING

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SEALED PROPOSALS will be received until 10 a.m. E.S.T. January 16, 1962, in the room of the Joint Committee on Printing, in the Capitol, Washington, D.C., for furnishing the paper for the public printing and binding, and blank paper and plain envelopes for the use of the Government departments and establishments in the District of Columbia, for the terms of 3 months for paper and 6 months for envelopes beginning February 1, 1962, deliveries to be f.o.b. Government Printing Office Warehouse, or warehouse siding, Washington, D.C. The proposals will be opened in the presence of and the award of contracts made by the Joint Committee on Printing to the lowest and best bidders for the interest of the Government whose bids are in conformity with the requirements of the proposals. The committee reserves the right to reject any or all bids, or to accept any bid or any part and reject the other part, if, in its opinion, such action would be in the interest of the Government.

Blank proposals containing the instructions, schedule, and specifications may be obtained by addressing James L. Harrison, Public Printer, Washington, D.C.

Contracts will be entered into for supplying the quantities required, whether more or less than the estimates as provided in paragraph 26 of the proposals for paper and paragraph 26 of the proposal for envelopes.

The approximate estimated quantities set forth in detail in the schedule comprise:

PAPER

1,425,000 pounds machine-finish book paper; 30,000 pounds machine-finish book end paper; 75,000 pounds english-finish book paper; 15,380,837 pounds offset book paper; 325,000 pounds antique book paper; 40,000 pounds supercalendered book paper; 1,195,000 pounds coated book paper; 25,000 pounds water resistant text book paper; 1,411,850 pounds mimeograph paper; 650,000 pounds duplicator copy paper; 11,488,000 pounds writing paper; 386,150 pounds map paper; 355,000 pounds manifold paper; 2,236,500 pounds bond paper; 4,000 pounds 100% bond paper; 75,000 pounds translucent bond paper; 524,400 pounds mimeograph bond paper; 4,000 pounds 100% parchment deed paper; 970,000 pounds ledger paper; 27,000 pounds 100% ledger paper; 1,675,000 sheets index paper; 525,000 pounds index paper; 60,000 pounds 100% index paper; 45,000 pounds litho-coated cover paper; 500,000 pounds antique-finish cover paper; 10,000 sheets cloth-lined cover paper; 15,000 pounds manila paper; 224,000 pounds kraft paper; 380,000 sheets gummed paper; 25,000 pounds blotting paper; 6,000 pounds oiled manila tympan paper; 50,000 pounds manila tag board; 25,000 pounds manila cardboard; 15,000 pounds jute tag board; 10,000 pounds wallet board; 85,000 sheets railroad board; 265,000 pounds board, tan and/or blue; 2,920,000 pounds postal card paper; 10,000 pounds bristol board; 45,000 sheets pressboard; 210,000 pounds newsboard; 250,000 pounds book cover board; 30,000 sheets notebook board.

ENVELOPES

The approximate estimated quantities set forth in detail in the schedule comprise:

49,790,000 kraft envelopes; 16,015,000 writing, chemical wood envelopes; 160,000 100% writing, white, envelopes; 815,000 25% bond, white, envelopes; 20,000 50% ledger, white, envelopes.

By direction of the Joint Committee on Printing.

JAMES L. HARRISON,
*Public Printer.*

WASHINGTON, D.C.
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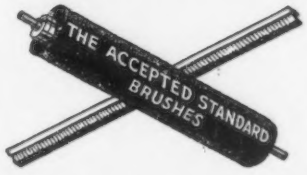


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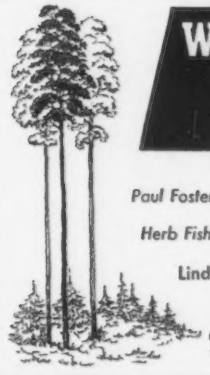

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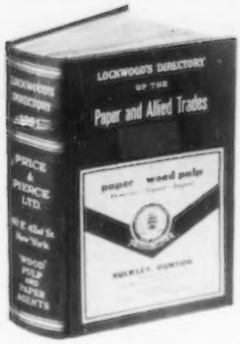


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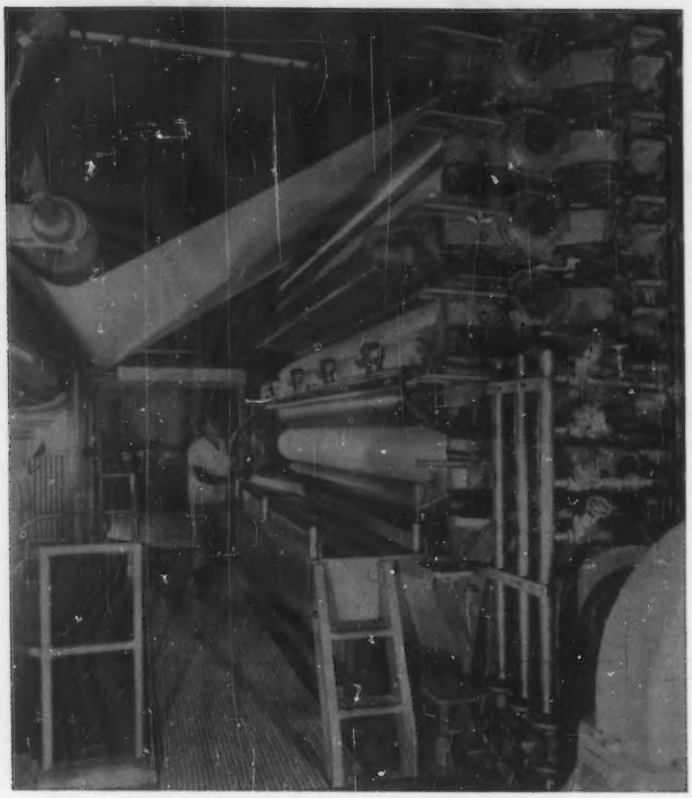

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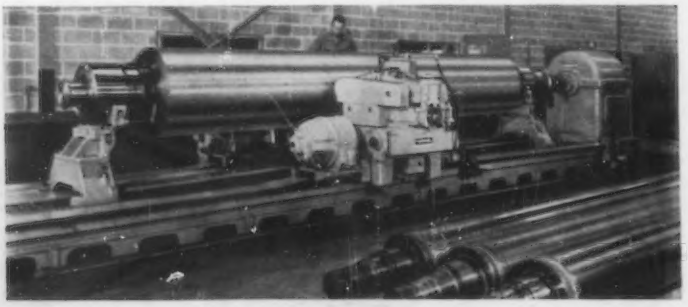

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